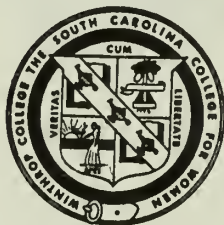


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RECREATIONAL RESOURCES OF THE ALASKA HIGHWAY AND OTHER ROADS IN ALASKA



DECEMBER 1944

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

RECREATIONAL RESOURCES OF THE ALASKA HIGHWAY AND OTHER ROADS IN ALASKA



UNITED STATES DEPARTMENT OF THE INTERIOR
HAROLD L. ICKES, Secretary

NATIONAL PARK SERVICE
NEWTON B. DRURY, Director

DECEMBER 1944

UNITED STATES GOVERNMENT PRINTING OFFICE

• WASHINGTON •

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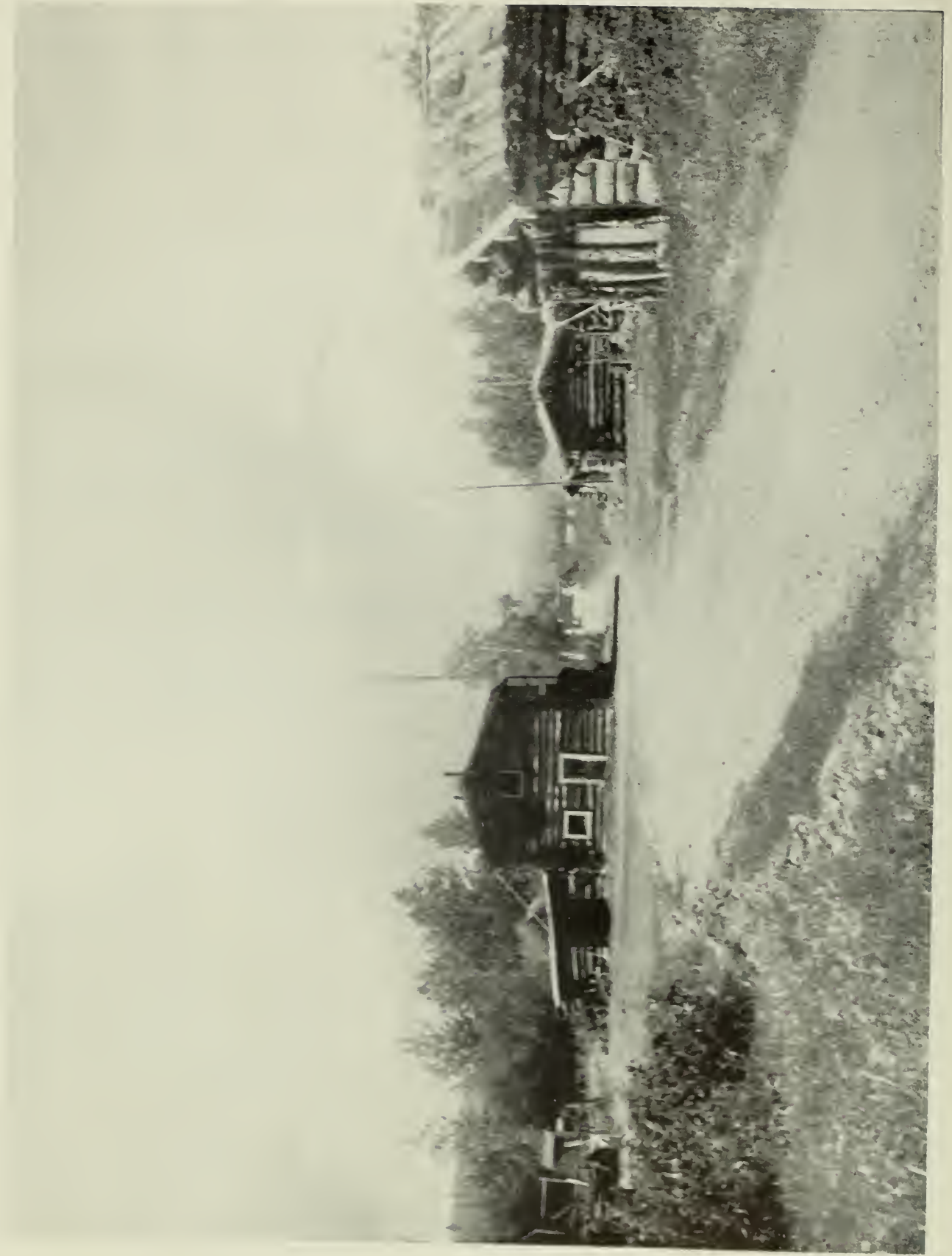


Figure 1.—The Alaskan scene.

FOREWORD

THE TRAGIC WASTE OF WAR is deplored by most civilized peoples. Even to those whose professional careers are dedicated to the waging of war, its toll in property values, industrial plants, natural resources, and human lives is staggering. Instances are few when the instrumentalities of war can be made to serve a useful purpose in time of peace. The failure to take full advantage of such limited opportunities offered is as wasteful as the willful destruction of natural resources.

The construction of the Alaska Highway was the result of the military need for an overland route to Alaska and the necessity to service a chain of airfields that had been established along the route. Its value to the normal development of the great Territory to which it provides an additional means of access had long been stressed. Its construction had been urged by many of those most conversant with Alaska's potentialities.

After peace has been restored, this highway will serve as an artery for the flow of civilian travel between the States and Alaska. Some of this travel will be for business reasons; by far the larger share will be of travelers upon vacations bent. It is probable that many of those who will go to see will be influenced to remain or to return and become permanent residents of the great northern land.

The Alaskan portions of the Highway lie almost entirely in virgin country. They pass through lands still in public ownership. The same is largely true of other roads within the Territory which are joined by the Alaska Highway to form the nucleus of a coordinated system.

It is essential and timely that plans be laid for the protection of the scenic, scientific, and historical features of lands immediately adjacent to this system of highways, and for their proper utilization for recreational purposes. With such objectives in mind the National Park Service has prepared this report, **RECREATIONAL RESOURCES OF THE ALASKA HIGHWAY AND OTHER ROADS IN ALASKA**. It covers one phase of the larger program of helping Alaska to use wisely the resources that have now been made more easily available.

HAROLD L. ICKES, *Secretary of the Interior*.

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INTRODUCTION

Construction of the Alaska Highway has led to conjecture as to the extent to which this artery, built for military purposes, will serve the needs of tourist and recreational travel after the war.

Such an appraisal at this time must be more or less speculative. The volume of use will depend upon the degree to which the Highway is maintained and improved, as well as upon postwar trends of travel. This much is certain, however—that with the return of peace and the release of the pent-up desire to see and explore, many motorists will turn their thoughts toward Alaska. Hitherto access to this land of mystery has been only by water, or in recent years, by air. Here at last is a passable motor road to the Territory.

This new means of access to Alaska runs generally northwest from Dawson Creek, a railhead and highway terminus just inside the eastern boundary of the Canadian province of British Columbia. In crossing the southwest corner of the Yukon Territory, it throws southward a spur connection to the Alaskan port of Haines. After its passage from the Yukon Territory into Alaska, the through route divides; the northwest branch joins near Big Delta with the Richardson Highway to Fairbanks, while the branch to the southwest connects at Slana with other roads to Anchorage and to the seaport of Valdez. At the request of the Secretary of War, on July 20, 1942, the Secretary of the Interior withdrew from entry a strip of land 40 miles wide through which the Highway passes in Alaska, to facilitate location and construction of the Highway.

It became manifest early in this study that all the other units of the present network of roads in Alaska, as well as the newly-constructed Alaska Highway, are involved in the region's recreational

future. The traveler who seeks to draw from his summer in Alaska the full measure of enjoyment and understanding will include in his itinerary trips by automobile over parts of the Alaska, Richardson, Glenn, Edgerton, and Steese Highways.

Alaska authorities have recognized that in the Territory's economic future a large part could, and should, be played by that industry, or group of industries, which is based upon travel and recreation. At the same time, experience in other wild and perishable regions has shown that important values in scenery, vegetation, wildlife, and other features could be unnecessarily destroyed or deteriorated if, without any guiding purpose, the lands bordering new highways were allowed to go the way of haphazard and unplanned development. Attention has been drawn to the fact that the United States portion of the Alaska Highway is almost entirely through lands still in the public domain and thus subject to government control. This is largely true of other highways in Alaska.

Recognizing these facts, the Secretary of the Interior requested the President's approval of the allocation of sufficient funds, from those provided for the Alaska Highway, to finance the study and preparation of a plan for necessary and proper development and use of these lands in question. Approval was given on January 8, 1943, the task was assigned to the National Park Service, arrangements with the War Department were consummated, and field study was begun in April, 1943.

This report records facts ascertained during the study and makes broad recommendations arising therefrom. Toward its preparation cheerful and invaluable assistance has been rendered by a host of officials and private citizens.

In anticipation of an influx of tourists and potential settlers three conditions are recognized; first, that suitable provisions for roadside accommodation must be provided in advance of public travel; second, that numerous applications will be received for lands along the highway network, to be used for homestead, homesite, and general business purposes, especially in the vicinity of road intersections; and third, that the scenic, wildlife, and his-

torical values along the route will suffer irreparable damage unless the developments for public use and the disposal of public lands along the highways proceed in accordance with an orderly program that is in the public interest. Such damage should be kept to a minimum; for it would destroy an important factor in the service to the tourist which bids fair to become one of Alaska's most lucrative sources of revenue.

NEWTON B. DRURY, *Director.*
National Park Service.

SUMMARY

For ease of reference, the basic assumptions, significant findings, and major recommendations of the Alaska Highway Land Planning Survey are here summarized. Embodied in the report will be found fuller and more extended discussions of premises which have been necessary, of circumstances and conditions which have been found to pertain, and of conclusions and recommendations which they have dictated.

BASIC ASSUMPTIONS. In considering probable future recreational use of Alaskan roads it has been necessary to take for granted that certain actions will be taken and operational policies followed, in the general course of affairs and regardless of recreational import. While recommendation as to the advisability of these actions and policies is beyond the scope and authority of this survey, they are so closely related to its subject as to warrant enumeration. It is assumed that:

1. The Alaska Highway of postwar years, through Canada and Alaska, will be maintained in no less passable condition than at present.
2. Approach roads from the United States through Canada to the Alaska Highway will be



Figure 2.—Forerunner of the tourist army.



Figure 3.—Prewar Alaskan roadhouse.

improved to standards comparable with those to which the Highway has been built, and will be so maintained.

3. Roadside accommodations will be provided by Canada which will be equivalent in quality and in distribution along the Highway and its approaches, to those which are recommended for Alaska by this report, and as soon available.

4. Mentasta Road and the Haines Cutoff will be brought to parity with through portions of the Alaska Highway, so far as ease of travel is concerned.

5. The important roads of Alaska will be treated in some manner to alleviate the dust nuisance which now prevails.

6. Fast ferry service will be instituted between Prince Rupert and the head of the Lynn Canal, with such intermediate stops as may be required.

7. A coordinated system of bus lines will be inaugurated, placing common carrier travel to and over Alaskan roads on the same basis as similar travel in the United States.

8. Highway connection will be provided in the not too distant future between the Richardson Highway and the present park drive in Mount McKinley National Park.

SIGNIFICANT FINDINGS. Through study of field conditions certain facts have appeared and other conclusions been reached which are significant in that they affect recommendations for the use of lands adjacent to the highways for park and recreational purposes. Chief among these are that:

1. Major postwar value of the Alaska Highway will be as an integral part of the Territorial road system, and not as a parkway approach to Alaska. It does not pass through areas of superlative scenic value.

2. Solution of the tourist problem can not be limited to lands lying adjacent to the Alaska Highway alone, but must be extended to include the Richardson, Glenn, Edgerton, Steese, and other highways in similar coverage.

3. Communities may be expected to develop, particularly at junctions of the highways with each other and with existing and potential feeders. Primary probabilities are Glennallen, Tok Junction, and Delta Junction.

4. It will be unnecessary to set aside large tracts of land along the highways for purposes of protecting scenic, scientific or historical values, or for utilizing such values for recreational purposes and visitor accommodation. Control and precept are more required than sequestration.

5. At Mentasta Lake opportunity is offered near the road for the development of vacation-type facilities as contrasted with those for the utilitarian overnight stop, to serve both Alaskan and visitor.

6. Appropriate field quarters and working space will be required by agencies concerned with highway maintenance, land use, and tourist activities, particularly at the boundary on the 141st meridian.



Figure 4.—Tok Junction—1943.



Figure 5.—Newly established roadhouse along the Glenn Highway.

7. Volume of expected recreational travel to Alaska by road can not be forecast with any degree of precision, because of various unknown factors. Supposing adherence to policies of action outlined, and basing expectancy of use upon known facts concerning recreational travel elsewhere, postwar years may see 40,000 tourists driving to Alaska.

8. As many as 8,000 tourists reaching Alaska annually by means other than private automobile will desire to utilize the highways for closer inspection of the Territory.

9. The average stay of the tourist in Alaska, exclusive of travel in Alaskan waters, will be not less than 8 days. About half the nights will be spent in settled communities.

10. In view of the recent stimulation of interest in Alaska, tourist travel thereto will hardly await assurance that there are suitable stopping-places enroute. There are none now.

11. Construction camps which may remain along the Alaska and other highways are not well adapted for service as tourist stopping-places.

12. Provision of recreational accommodations through private enterprise ordinarily follows demonstrated travel beyond the capacity of existing facilities.

13. Deficiency of suitable accommodations, once travel has begun, will result in discouragement of future recreational travel.

14. To forestall the unfairness to Alaska of such inevitable discouragement of travel, provision of facilities should be a governmental obligation.

15. If they are so provided, responsibility for construction and administration should be allotted to some governmental agency, and arrangements for later operation should be perfected.



Figure 6.—A desirable site for overnight accommodations.

SUMMARIZED RECOMMENDATIONS. Upon the basis of assumptions and significant findings earlier noted, certain recommendations have been formulated with regard to protection of scenic, scientific, and historical values of the lands immediately adjacent to the Alaska system of highways, and proper utilization of these values for recreational purposes, including provision for visitor accommodation. These recommendations are that:

1. Withdrawal from entry be maintained temporarily over all lands now in public ownership within one-half mile of all the major Alaskan roads and within two miles of such spots along these roads as may appear to the General Land Office as apt locations of community growth.

2. A width of 300 feet on each side of the center line of traveled way of all roads be reserved as a right-of-way to protect scenic attractiveness, and that scenic easements be included in issuing patents to lands abutting the roads, when action of such nature is requisite to prevent unsightly results.

3. Definite plans for suitable development of potential community sites be prepared during the temporary withdrawal, so that civic progress may be guided by the General Land Office after relaxation of withdrawals. Glennallen, Delta Junction, and Tok Junction are suggested for first attention.

4. Development of communities along the highways be left to private initiative, but in general conformity with such plans as may be prepared. Until development by private enterprise has been stimulated it may be the part of wisdom to provide at Tok Junction from public funds stop-gap facil-

ities such as are elsewhere recommended for non-community sites. At Delta Junction the nearby existing roadhouse may offer some degree of service; at Tok Junction there is nothing of the kind.

5. Major overnight tourist stopping-places in other than urban settings be established at intervals of about 35 miles along the Alaska Highway and other roads in the Territory except in locations where the anticipated need can be served adequately by roadhouses which are already functioning in a satisfactory manner.

6. Secondary roadside stopping-places be developed at sites particularly adapted as centers for hunting and fishing while still serving, to lesser degree than the major stops, those whose interests lie primarily in sightseeing.

7. At major and secondary stopping-places the established right-of-way be increased as circumstances may indicate, for proper inclusion of required facilities and to provide a buffer strip to maintain scenic attractiveness.

8. Present plans for major and secondary stops be capable of later expansion to guest-capacities of 75 and 25 persons, respectively, even though immediate development to that extent may not seem necessary or expedient.

9. Provision be made for off-road parking in locations of significant scenic, scientific, or historic interest, and that interpretation by means of instructional markers be provided.

10. At Mentasta Lake an area of approximately 6,400 acres be set aside, entirely surrounding the



Figure 7.—Sights like Worthington Glacier merit parking overlooks.

lake, for development as a vacation center to accommodate a maximum of 250 visitors at one time.

11. The major stop at the Alaska-Yukon boundary (longitude 141° west) be planned to include facilities for customs and immigration service and for other necessary activities of the two governments concerned, including housing of personnel.

12. In general, every third major overnight stopping-place, counting existing and probable communities as well as roadside stops, be planned for accommodation of bus passengers as well as of those who will be traveling by private automobile.

13. Public funds be sought, either through regular channels of legislative appropriation or under any possible postwar work program, for purposes of constructing facilities herein recommended for roadside accommodation of the traveler and for vacation use at Mentasta Lake.

14. Administration of all vacation and stop-over facilities on government lands along the highways of Alaska be vested in an appropriate governmental agency functioning in Alaska.

15. Operation of tourist facilities built and owned by the United States be placed for a reasonable annual fee in the hands of a quasi-public and limited-profit corporation, owned and managed by Alaskans, formed specifically for the purpose of

furnishing these services, and returning to extension and improvement of plant all profits beyond an established fair return on stock investment.

16. Utilization of such construction camps as may remain on the Alaska Highway for tourist housing be disregarded if it is possible to postpone demand for travel opportunity until more suitable accommodations can be provided.

17. Legislation be enacted authorizing the Secretary of the Interior, as an interim measure, to lease, supervise the operation of, and later reclaim, selected sites for public accommodation along the highways of Alaska.

18. Programs for post-construction and maintenance of all roads in Alaska include the disposal of inflammable debris, further treatment of side-slopes and gutters, and selective cutting along the right-of-way.

19. A concerted and coordinated system of mileage marking be adopted for and applied to the Alaskan highway network, as a responsibility of the road-administering agency, and for the convenience of the using public.

20. The pattern of modern telephone communication currently available along the Alaska Highway be extended to include all roads which will serve as major arteries of tourist flow.



Figure 8.—The snow-capped Wrangells.



Figure 9.—Mentasta reflections.

THE ALLURE OF ALASKA

Why has Alaska drawn travelers for recreation to itself as a magnet, through the years, and why will this attraction persist and increase after it is no longer imperative that all energies of the nation be directed toward successful prosecution of the war in which we are now engaged?

PUBLICIZED OPERATIONS. Publicity attendant upon construction projects and operational undertakings has always encouraged recreational travel. Extra miles are driven by tourists to view the largest earth-filled dam, the longest suspension bridge, the busiest open-pit mining operation. The term "publicity" as here used refers not only to paid advertisements, editorial comments, and reviews in technical publications, but also to that received orally and in personal correspondence from friends and relatives who have participated in or witnessed the project or operation.

No other activity connected with the Territory in recent years has been publicized as has the Alaska Highway. Press releases to the newspapers have detailed the difficulties surmounted by engineer troops; scientific articles have covered the part played by the Public Roads Administration and its accessory contractors; thousands of persons have heard parts of the saga of the Highway from fathers or brothers, sweethearts or friends, who have fought muskeg with engineer troops or ridden the bucking tractors of contractors. The Highway has been glamorized. It is safe to say that, at one time or another, the owners of at least a quarter of the more than twenty million passenger automobiles in the States have dallied with thoughts of taking the much-publicized trip to Alaska within the next few years after the war.

Less in the public eye than construction of the Highway, but nevertheless acquainting thousands with some part of the story of Alaska, are other military activities which have centered there.

Officers and enlisted personnel of Army and Navy units stationed in the Territory have pictured to the home folk, so far as censorship regulations would permit, the terrain, surroundings, and people that have been parts of their daily lives. Perhaps the very fact that full description has not been possible in letters will render more lively and enduring the desire of families to see for themselves the locale of the MP station manned by their Corporal Johnny or the pier to which Seaman Bob's Coast Guard home was moored.

Normal pursuits of life in Alaska in peace-time have also received much publicity in prewar times. Agricultural colonization in the Matanuska Valley was the subject of lively discussion in the States during its early operation and until superseded by war-interest. With highway access from the east to the Valley possible for the first time, inspection is probable by tourists who have retired from agricultural labors or who recall youthful days spent in rural environment. This is to be understood not to refer to those whose motivating purpose in visiting Matanuska is to investigate its possibilities as a permanent home, but rather to those whose interest in the experiment there conducted lies in what others are accomplishing more than in what they might do personally.

Since the days of '98 Alaska and gold have been associated, even in the minds of those whose acquaintance with both has been slight. Fisheries and fur industry of the Territory are comparable in value with its mining activities, but have not so captured public interest. The lure of yellow gold persists, even though it has been supplanted as the most precious of metals. Extensive placer mining operations easily reached from Fairbanks and the large lode workings at Juneau will continue to draw lively interest from the tourist, perhaps on a more extensive scale than they have in the past, because of the increased number of visitors.

LOCATION AND CLIMATE. Alaska's geographical position may be somewhat vaguely fixed in the mind of the average citizen. He may not realize that its area is one-fifth that of the forty-eight states, that Ketchikan is not as far west of San Francisco as Salt Lake City is east, while Attu is nearly as far west of Hawaii as that island is west of San Francisco, or as San Francisco is west of St. Louis. He is quite sure, however, that Alaska is the most northerly land over which the Stars and Stripes fly, the nearest highway approach to the North Pole on this continent.

He will not be able to cite the normal population of the Territory as about 75,000 persons, roughly that of Portland, Me., or of Charleston, S. C., but he will know that Alaska is sparsely settled, that it includes great areas which bear no evidence of human habitation save for scattered groups of aborigines, in short, that it is the last remaining great frontier region of our country, imbued with all the romance that the term connotes.

"Land of the midnight sun" is a designation to fire the imagination. In parts of Alaska it is literally applicable at the time of the summer solstice. Even in the southerly reaches of the Territory daylight hours in the summer season are such as to permit sightseeing for as long each day as the tourist may desire or his strength allow. So far as the visitor is concerned this fact may be regarded as one of Nature's automatic compensations for the travel season in such northerly latitudes begins later and ends earlier than in the States. Therefore the tourist who plans but a single trip to Alaska and wishes to see all that is possible during the time at his disposal will arise early, to find that the sun has preceded him, and defer selection of his resting-place for the night much longer than his custom.

Over much of those portions of Alaska now reached by highway the summer weather is admirable for travel. Temperatures do not vary sharply from those experienced in resort regions of the States. In the Interior, precipitation is normally light, with sunny days predominant during the summer months. Only when approaching the sea-coast does the traveler ordinarily have occasion to accommodate his plans to weather conditions. Here, in vegetative surroundings known as "rain-

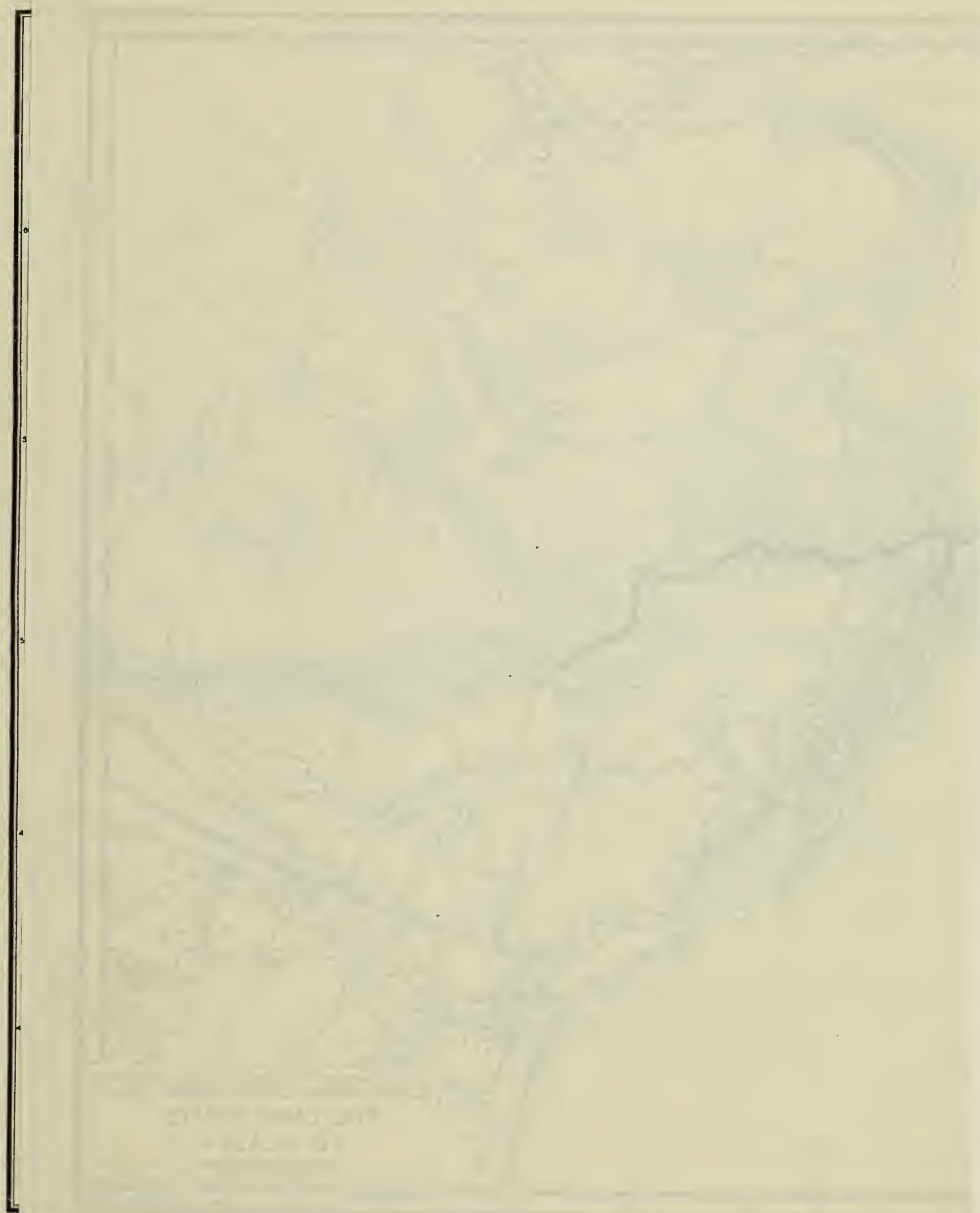
forests", clear days are in the minority and sunny days are to be greeted with enthusiasm.

SCENIC VALUES. Tourists are drawn to any particular section of the earth's surface by curiosity concerning its inhabitants, their activities and ways of life, and by seasonal climatic circumstances more pleasing than those to which they are accustomed at home. The summer exodus from city heat to comparative coolness of mountain or seashore finds its winter counterpart in migration from the ice and snow of northern homes to sun-drenched beaches and rustling palms of Florida and Southern California.

Beyond these attractions is the urgency to visit surroundings dissimilar to wonted environments, and particularly those distinguished as of unusual scenic attractiveness. Of these there is no dearth in Alaska. Mountains, glaciers, rivers, lakes, and forests all combine to render it a land inspiring more than the usual complement of "Ohs" and "Ahs".

The Alaska Range lies crescent-wise athwart the southern portion of the Territory, dominated by Mount McKinley, mightiest monarch of the North American continent, towering 20,300 feet toward the zenith. From its eastern extremity the Wrangell Mountains lead to and tie in at the Yukon boundary with the giants of the St. Elias Range. Of these Mount Logan and Mount St. Elias cede precedence only to Mount McKinley. Westward from St. Elias the Chugach Mountains skirt the Gulf of Alaska as far as Anchorage, at the head of the Kenai Peninsula. West of Anchorage the Aleutian Range picks up, following the Alaska Peninsula southwest, gradually diminishing and at last vanishing into the sea at the western end of the Aleutian chain of islands. These and many others worthy of specific mention not possible here, are objects of note to the visitor, whether viewed from highway, railroad, boat, or plane. As the higher peaks and crests are perpetually snow-clad, a favorite pursuit of the tourist is to watch the snow line creep daily lower as the season advances and late summer merges into autumn with its promise of winter rigors to come.

As might be expected in the latitude of Alaska, tremendous ice fields are found at the high elevations, particularly in locations such that high table-



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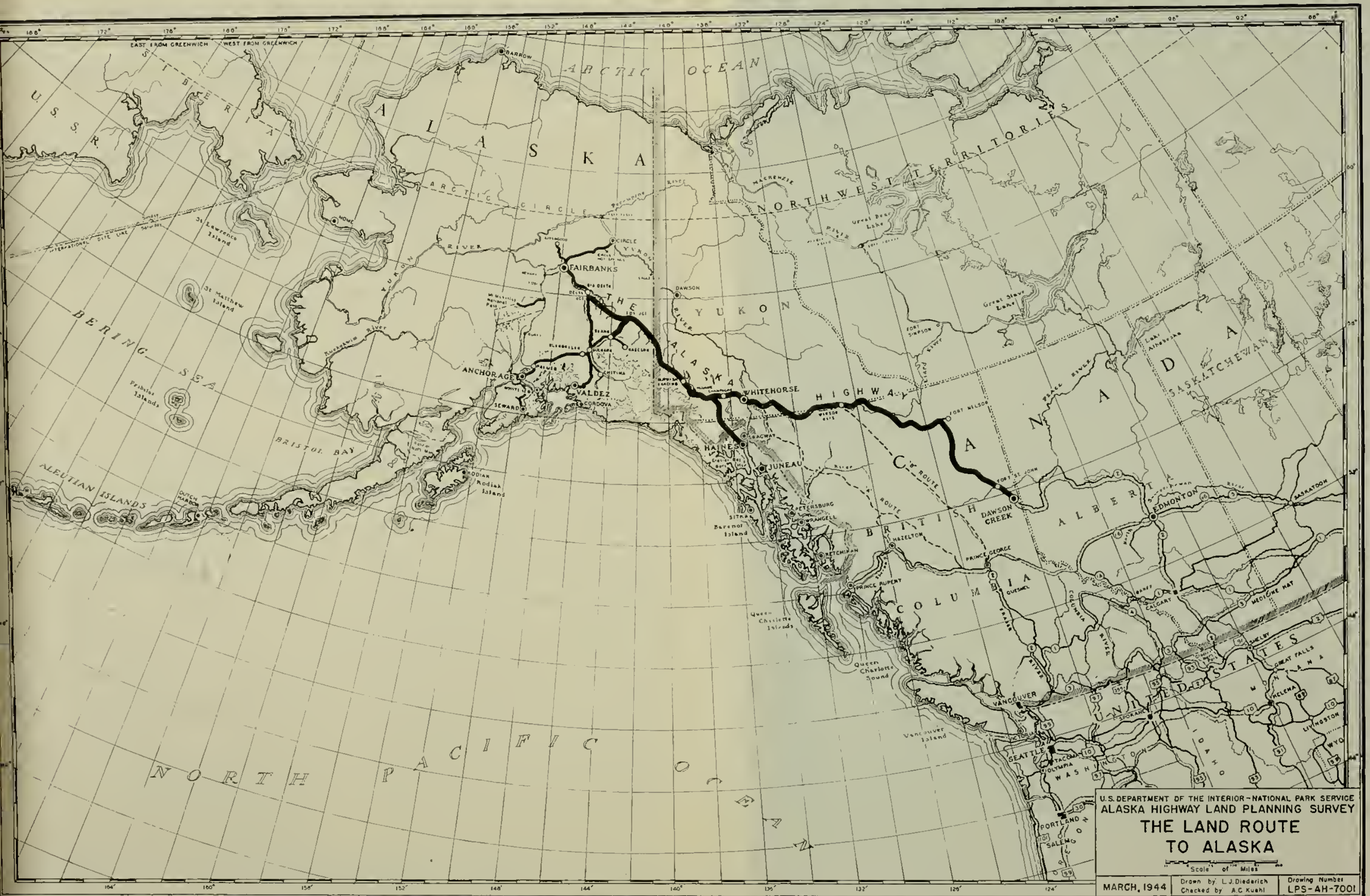


Figure 10.

lands are largely enclosed by surrounding peaks. These ice fields, building up until they spill through between the circumscribing heights, are the genesis of glaciers which wend their inexorable albeit sometimes almost imperceptible course to the sea, where they discharge as bergs, or to lower elevations inland, where their melting faces become sources of rushing glacial streams. Among the larger glaciers are Malaspina and Bering which flow south into the Gulf of Alaska, and Columbia which debouches into Prince William Sound. Some of the smaller but not less interesting examples, better known to the general public because of easy accessibility, are Mendenhall, but a few minutes drive from Juneau over the Glacier Highway, and Worthington, its face plainly displayed within 500 yards of the lower Richardson Highway. Glacier Bay National Monument, in Southeastern Alaska, includes within its confines the Fairweather Range, Brady Ice Field, and numerous glaciers whose faces may be approached at short range by boat through fiorded inlets into which are cast their discard of bergs.

Among the rivers of Alaska none has more romantic association than the storied Yukon, immortalized by the pens of Robert Service and others. One of the longest navigable rivers in the continent, it bisects Alaska in its course, first northwest and later southwest, from its source in the Yukon Territory to Bering Sea. It is interesting to note that at Whitehorse, head of navigation, only 111 miles by rail from the Alaskan port of Skagway, the traveler by boat is nearer to the ocean than at any point until he approaches Bering Sea.

Important tributaries to the Yukon are the Porcupine and Koyukuk from the northeast, and the Tanana from the southeast. Major rivers not tributary to the Yukon include the Kuskokwim flowing southwest into Bering Sea, the Susitna which empties southward into Cook Inlet just west of Anchorage, and the Copper which finds its way southward to the Gulf of Alaska near Cordova.

Discounting air travel, which makes all scenic resources easily available, the usual tourist will see the Yukon only by river boat, the Susitna from the Alaska Railroad, the Tanana and Copper from the highways, and other of the major rivers mentioned not at all.

Many of the lesser streams of Alaska, and to

some extent the larger ones, are "fast water." In the sections most easily reached by tourists, namely Southeastern Alaska and the southeast quadrant of the areal mass west of the 141st meridian, glacial streams predominate, their waters characterized by milky cloudiness and comparative opacity as they tumble toward the sea.

Lakes and ponds are plentiful in Alaska, widely scattered and diverse in size and nature. Iliamna, lying across the head of Alaska Peninsula, is more than 75 miles in length and attains a width of 20 miles. Tanana's broad upper valley is studded with thousands of lakes from Tetling, the largest in this vicinity, to the Yukon border. From aloft on a crisp, sunny morning in late August the scene is breath-taking, a fantasy of turquoise and cobalt gems strewn upon a soft background of Chinese rug simulated by the russets, golden browns, and yellows of deciduous autumnal foliage. Many of the smaller lakes are so shallow as to freeze solidly during the severe winters of the Interior, thus becoming untenable for game fish and detracting from the charm which they would otherwise hold for devotees of rod and reel.

The tourist who pictures Alaska as a desolate waste, devoid of vegetation, will needs revise his concept. It would be as absurd to assume that the entire Territory is clothed luxuriantly in forest. Timber line is lower than in more southerly latitudes, and in summer bands of naked rock intervene between lower spruce-enveloped slopes and snow-tipped summits. Rain forests encircling the Gulf of Alaska and extending southward to include much of Southeastern Alaska are similar to those along the north Pacific coast in the States, except that they are punctuated and enlivened by glaciers. The impression gathered is one of lush growth, in both forest cover and under-story. Streamers of gray moss hang from the trees and no impossible strain of imagination is required in some locations to transform towering spruce to spreading live-oak and the locale from "Arctic" (!) Alaska to the bayou country about New Orleans. Sitka spruce harvested from the rain forests of Alaska is playing a role in the program through which the Allied Nations are winning dominance in the air.

Along the route of the Alaska Highway, through the Tanana Valley southeastward from Fairbanks, forest growth is less impressive. Spruce here is



Figure 11.—Through birch and aspen, west of the Yukon boundary.

also predominant, but less grandiose in scale, the general effect being that of even, dense distribution of poles 6 inches to 8 inches in diameter and of relatively uniform height. Passage along the arrow-straight flight of level road tangents cut through solid growths of this nature is apt to become monotonous and even depressing, particularly if unrelieved by evidences of human habitation or by occasional views of distant mountains.

Approaching the Yukon boundary the scene lightens; the country is more rolling, and the lighter summer green of birch and aspen enlivens the funereal sombreness of spruce. Commercial utilization of timber here on an extensive scale appears doubtful unless local industries are developed to fabricate small articles. Fuel use of wood is an important factor throughout Alaska.

WILDLIFE. The visitor in an unfamiliar land is always interested in its beasts of the field, birds of the air, and creatures of the sea. He is delighted to recognize those to which he is accustomed at home, and curious to discover the habits and characteristics of those new to him, especially if he has learned of the latter through hearsay or study or casual reading.

It is not within the province of this report to recite or catalog all species which are found in Alaska, but mention may well be made of a few which will not be encountered normally by the tourist in his home surroundings, and which he may be interested in seeing.

The ubiquitous black bear, the grizzly, and the Alaska brown are all found in the Territory. By

popular impression the grizzly is accorded the dignity of "fiercest of his kind"; yet the Kodiak brown bear is tougher, fiercer, and larger, reputed to be the largest carnivorous land animal in the world. The habitat of the polar bear is beyond those sections usually reached by the tourist, so that few of the species will be seen.

Deer, moose, caribou, and reindeer tenant various ranges in Alaska. Mountain sheep and goats are found particularly in the rocky fastnesses of the southeast quadrant. The bison colony established in 1928 in the vicinity of Big Delta is reported to be doing well. Fox, marten, mink, otter, ermine, and beaver are among the fur-bearers trapped each year to values of several millions of dollars. Fur farming, the raising of foxes in captivity, has been an important industry, and will perhaps be revived in postwar years.

Among the predators common in the Territory may be listed wolf and coyote, the advent of the latter attendant upon human migration from the States. Control of these animals, inimical to the interests of fur industry and big-game hunter alike, has been a subject of bitter controversy in Alaska.

The traveler by sea will witness the sleek emergence of sealheads and may glimpse the feathery drift of spume betraying the subsurface presence of a whale. The sea otter is now so rare, except in the western Aleutians, that he will probably view its beautiful pelt only in museum exhibits. He will catch flashes of silver as 3-foot salmon leap clear from and return to their native element. Ashore, in his traverse of the highways, he will cross many streams abounding in grayling, the sport fish most numerous throughout the Territory. Dolly



Figure 12.—Grizzly bear, Mount McKinley National Park.



Figure 13.—Matanuska Glacier.

Varden and rainbow trout will test his mettle, the latter sometimes reaching 12-pound size.

Migratory waterfowl are abundant in Alaska. Their nesting areas are in comparatively isolated locations, and thus protected. Glacier Bay National Monument is reputed to be one of the few nesting places of the eider duck.

OPPORTUNITIES FOR SCIENTIFIC STUDY. Numbered among visitors to the Territory will be those who are attracted, not by curiosity as to the aspect of the country and achievements of its inhabitants, but by the deeper desire to know and to understand natural phenomena which are apparent as the planet which we inhabit follows its infinite pattern of development. Opportunities for scientific study are manifold in Alaska.

It is a new land, physiographically speaking as well as in the sense of human occupation. Many of the processes now evident were factors in shaping the terrain of the States in bygone centuries. Land forms have not assumed the comparative stability of those in older sections of the world. Object lessons are easily found to typify processes which must be discovered by reasoning elsewhere. In Alaska glaciers still scour and transport gravel,

volcanoes still smoke, rivers struggle toward their ultimate channels, alluvial fans are built up in seeming contradiction of gravitation. Its value to students of physical geography as a laboratory for research and demonstration purposes is apparent.

Many geographical changes are based upon geological reasons. The practical application of the science of geology usually associated with Alaska is the determination of location and recoverability of deposits of precious or critical minerals or petroleum. Abstract geology goes far beyond that. Lessons learned from exploration in one part of the world may prove applicable to sites far removed. Data acquired as a by-product of current mineral investigations in Alaska may add materially to the world's store of basic geological information.

Evidences of volcanic action abound in Alaska. Outlines of blown-out craters are plain, even to the casual traveler without scientific training or lore. The Wrangell Mountains are of volcanic origin, built up of lava and volcanic mud. Mount Wrangell itself, 14,000 feet in elevation, is still active and occasionally wreathed with smoke.

Within the confines of Katmai National Monument is a spectacular association of volcanic phenomena. The Valley of Ten Thousand Smokes,

characterized by its myriad fumaroles or jets of steam, exemplifies a prior stage in the development of the famous geysers of Yellowstone. Mount Katmai, previously inactive, erupted with great violence in 1912. Within its snow-capped crater lies a milky-blue, mile-long lake, pierced by a small crescent island.

Nonprofessional tourists are impressed by glacial displays in their static aspect. Interest of the scientist lies more in habits of progression and recession, and in the effects of these habits in shaping the form and outline of the earth. Several scientific expeditions have explored and studied Glacier Bay National Monument and have recorded for their successors data there obtained. It may also be noted that the area has been used by the United States Army as a testing ground for various types of Arctic clothing and equipment.

Opportunities for biological study are everywhere in Alaska, whether in the fields of botany or of zoology. Much work has been done by governmental agencies concerned by threatened extinction of some of the Territory's most valuable commercial assets; much more remains to be done.

A mistaken popular notion persists that Alaska is a land of boundless and inexhaustible resources of animal life, where it is only necessary to step to the door for a bear steak "on the paw" or to the shore for a salmon steak "in the scales", and where such withdrawals will be automatically replaced. Such is not the case. Bountiful as they are, these resources must be husbanded and administered under suitable and necessary regulation, else they will dwindle and be lost forever. Further zoological research is indicated as a basis for regulation.

Research work in botany is needed to increase the world store of knowledge concerning Arctic and sub-Arctic flora and to provide timely and authentic information to settlers who will seek to grow, in Alaska and for Alaskans, the agricultural crops needed to support its augmented population. The parent experiment station near Fairbanks has done much along these lines; location of sub-stations in newly-accessible regions of possible agricultural value appears a desirable venture; experimental work in plant breeding, hybridization, and determination of resistant varieties suggests itself.

Alaska's climate is variable, as regards both temperature and precipitation. This is due to many

causes beyond mere geographical extent. Variations in relief and proximity to currents moving in and over the Pacific Ocean may be cited as specific influences. Southeastern Alaska is blessed with an equable climate, hardly ever below 0° in winter or above 90° in summer. In those portions of the Interior commonly reached by the tourist, however, particularly in the valley of the Tanana River, the range is increased to a considerable extent, summer temperatures of more than 100° and winter readings of -76° having been recorded officially.

Rainfall is heavy in Southeastern Alaska and on the coastal slopes of the mountain ranges bordering the Gulf, but decreases rapidly north of these ranges. In the vicinity of Ketchikan the average precipitation is more than 12 feet, while in the Tanana Valley at Fairbanks it is approximately as many inches. The proportion of this precipitation which is in the form of snow varies from less than one-tenth in the southeast to nearly all in the Arctic region. Point Barrow records some snowfall in every month of the year.

Such variations are advantageous for studies in climatology and meteorology in general, whether by interested amateur or professional scientist. The accumulation and analysis of meteorological data is especially important to Alaska because of the value of accurate weather forecasting in a land where transport is so largely by airplane and the growing season is so short. Great benefit will ensue from readings taken by military units located in places where maintenance of a civilian observer has been economically impossible. Perhaps with increased accessibility and attendant augmented population there will come improved facilities for weather research.

Students of ethnology have found Alaska worthy of search for data to confirm hypotheses concerning human movements and of study to determine results of racial admixtures. There is the theory that Man's first advent to this continent was from Asia across the narrow Bering Straits which separate Siberia from Cape Prince of Wales, and that later progress was eastward across Alaska and southeast to more temperate climes. Evidences to support this theory have been sought with relatively little result to the present time.

Natives of the Territory have been grouped in general as Indians of Southeastern Alaska, mainly

Tlingits, Athapascan Indians of the Interior, the Aleuts of the island chain, and the Eskimos, whose habitat is largely north of the Kuskokwim and Yukon Rivers. Much study has been given by scientists to the derivation of these peoples, to the manner in which each ethnic group has retained its individual character, and to the lessons which their methods of life have taught to the incoming white settlers, lessons which have made survival of the settlements possible and successful.



Figure 14.—A page from Alaska's past.

HISTORICAL ASSOCIATIONS. Many and gripping are the tales which linger of Alaska in the making, of the historical antecedents of the Territory as it exists today. Some have been gross exaggerations, tongue-in-cheek recitals which have acquired the flavor of truth through repetition; others, so improbable as to be remembered for their Munchausen-like quality, are as apt as not to be accurate narrations of actual incidents. In Alaska it is hard to know what or how much to believe.

Most of the historical associations which prompt visits to and travel in Alaska center around either the period of its existence as a Russian colony or the days of the Klondike gold rush at the turn of the century.

Establishment of Russian trading posts in Alaska was accomplished soon after the 1741 voyage of Vitus Bering to its shores. The first permanent settlement was made on Kodiak Island in 1784. The interest of the early trader-explorers was almost entirely in furs and their treatment of the Aleuts so harsh that in 1799 individual franchises were withdrawn and exclusive rights granted to a new trading corporation, the Russian American

Co., which ruled Alaska, to all intents and purposes, until 1862. The great period of Russian expansion was under Alexander Baranof, chief director of the company until his death in 1818. Moving his headquarters from Kodiak to Sitka in 1805, he there established a brilliant capital, from which trading posts and settlements extended from Bristol Bay to California.

After Baranof's death and with waning of Russian activity there came increased interest from other quarters. American whalers and trading vessels operated openly in Alaska and a Western Union Telegraph expedition began surveys for connection by cable overland, except for the narrow width of Bering Straits, between the United States and Europe. The project was abandoned in 1867 when the Atlantic cable was successfully operated.

At this time Russia was more concerned with home affairs than in defending such an outlying empire. Alaska was sold for \$7,200,000 and the American flag hoisted at Sitka on October 18, 1867. The Russian influence is still reflected throughout the Territory in geographical names reminiscent of the explorers and administrators of that nation, and in churches ordained by them which have persisted to the present day.

First discovery of gold in Alaska was in 1850, in the Kenai River basin. Productive mining has been carried on near Juneau since 1880. To the average person gold, Alaska, and the Klondike are related, perhaps because of the writings of Robert Service, Rex Beach, Jack London and others who took part in the rush of 1898 to Dawson, after the great Bonanza Creek "strike." Dawson actually is not in Alaska but in the Yukon Territory of Canada, at the junction of the Klondike River with the Yukon. Established in 1898, it became almost immediately the center of life for 30,000 fortune-seekers, as well as the Territorial capital.

Although in Canada, Dawson was best reached from Alaska. A particular aura of romance lingers over the approach from the port of Skagway, a hazardous journey fraught with severe hardships. From there the mountains could be crossed either through White Pass, traversed since 1900 by narrow-gage railroad, or through famed Chilkoot Pass, gained by steps cut in the icy 45° slope. From these passes the trails dropped to Lakes Bennett and Lindeman respectively, and to the most dan-

gerous part of the journey, by hastily constructed boat, through the rapids of Miles Canyon to Whitehorse, whence water travel to Dawson was comparatively simple.

It was possible then, as it is today, to travel all the way to Dawson by water. From the States the route crossed the open Pacific and Bering Sea to the mouth of the Yukon and upstream to the Klondike. Fortune-seekers, in frantic haste to reach fabled Dawson, gave scant heed to the easier but slower all-water approach. Hulls of Bonanza King and other famous river boats, abandoned after the rush, rot at the piers of Whitehorse today.

Thousands attempted the overland trek from the coast at Valdez, hoping to avoid payment of duty to the Canadian government. Most of them perished or returned destitute to Valdez. Sent out to prospect the possibility of this trail connection, Capt. William R. Abercrombie did much to explore and map the area and to find a way to the Interior.

He planned a road from Valdez to Copper Center, through Keystone Canyon and Thompson Pass, much as the Richardson Highway now exists. From Copper Center, following Copper River and the old Eagle Trail, crossing the Tanana River near the present Tanacross airport, access to Dawson would have been through Eagle and the Forty-mile country.

Russian period and gold-rush days are recognized phases in the development of Alaska, fascinating because of their tales of hardy achievement, of obstacles overcome, and of commensurate rewards to those who survived the rigors encountered. Who is to say, in retrospect, that activities on Alaskan soil and in Alaskan waters during the present world conflict have not merited similar consideration in the pages of history?

Much is already public knowledge, the pioneer construction of the Highway, the strategic location of Fairbanks at the northern crossroads of the air, the epic sagas of Attu and Kiska; much remains yet to be told. Certain it is that future travelers to the Territory will wish to see first-hand some of the scenes of stirring events of such significance.

SUITABILITY FOR OUTDOOR PHYSICAL RECREATION. Those who like to hike will find many chances in Alaska for the healthy pursuit of that avocation. Development of the Territory has necessitated much travel by dog-sled, and let it not be thought that

such travel exercises only the dogs. Although most tourists will visit Alaska during the off-season for such expeditions, they will be able, if they so desire, to follow on foot some of the trails which have had a part in making the Alaska of today. For them it will not be the hazardous "make-it-or-else" adventure of their predecessors. Alighting from motor-cars, they may elect journeys as brief or as protracted as may be dictated by tastes, physical condition, supplies, or equipment.

For those who may be addicted to the conquest of elevation, the field of choice is as broad. The novice may hike on Sunday from the docks at Juneau to the top of Mount Juneau, back-drop for the city, there to gaze upon the southward fling of Gastineau Channel and its encircling moderate heights. At the other end of the scale the experienced Alpinist will find dozens of peaks as worthy of his mettle as any which he may have attempted in Switzerland. Mount Sanford, with an elevation of 16,210 feet, was climbed first in 1938; Mount McKinley, highest on the continent, resisted all attempts to scale its 20,300 feet of altitude from 1903 until 1913. A single midsummer view of the cold stillness of these distant, snow-capped monsters is enough to remind ordinary mortals of their own insignificance and to inspire in seasoned climbers the desire to surmount the challenging heights.

The huntsman and the fisherman will find in the Territory species which they have not stalked or cast for at home, and will be impressed by the number and size of specimens of kinds with which they are familiar. Distribution and variety of game have already been touched upon; it is enough to reiterate that hunting and fishing in Alaska are good, but that principles of conservation must not be disregarded if they are to remain so.

Photography is not usually classed as a strenuous activity. However, it is an adjunct to enjoyments which are. Huntsman, fisherman, and mountain-climber alike desire to record and to substantiate accomplished feats. Even when pursued as an end in itself, photography is apt to entail a considerable amount of exertion if the best pictorial results are to be obtained. On occasion, good photographs may be snapped from speeding plane, or boat, or train, or automobile, but the seasoned photographer will often find his most interesting subjects far afield. He will deem it necessary to go to great

lengths and to exert himself beyond the normal to obtain viewpoints and acquire pictures which are distinctive and out of the ordinary.

NATIONAL PARKS AND MONUMENTS. Increased public familiarity with the units which are comprised in our federal system of parks has tended to cause thoughtful vacationists to accept such areas as objects worthy of inclusion in travel itineraries. There are five of them in Alaska.

Mount McKinley National Park includes within its 3,030 square miles the highest mountain in North America. From its drives the tourist will be able to view animal life in greater numbers and in more variety than from any other road in Alaska which he may travel. The park is located in the south central part of the Territory, and reached by the Alaska R. R. between Fairbanks and Anchorage. Facilities for accommodation of the public are normally available.

Glacier Bay National Monument is one-fifth larger in area and contains the Fairweather Range as well as tidewater glaciers of first rank. Much

of its shore is heavily timbered. Located in Southeastern Alaska and bordered in part by the Pacific Ocean, the Monument is not yet developed for accommodation of visitors, and is accessible only by plane or boat, without regularly scheduled service.

Katmai National Monument covers more than 4,200 square miles and borders Shelikof Strait near the head of the Alaska Peninsula. It is a wonderland of scientific interest in the study of volcanism, including the famed Valley of Ten Thousand Smokes. Accessibility and visitor facilities are as limited as at Glacier Bay.

Old Kasaan National Monument covers only 38 acres but includes an abandoned Haida Indian village in which remain totem poles, grave houses, monuments, and parts of the original framework of buildings. It is reached by launch from Ketchikan.

Sitka National Monument is an area of 57 acres, within walking distance of the city of Sitka. Like Old Kasaan it is of historical significance, the site of an ancient village of Kiki-Siti Indians. A Russian midshipman and six sailors, killed in the decisive "Battle of Alaska," are buried there.



Figure 15.—Mount McKinley (Sackman photo).



Figure 16.—To Alaska by sea. (Courtesy Alaska Steamship Company)

MEANS OF ACCESS TO ALASKA

In estimating the recreational use which will be made of Alaska's roads it is unwise to assume that postwar travel routes and methods will be similar to those in effect prior to hostilities. Military developments will modify peacetime means and habits of travel; the extent of the modifications can not be foretold but must be discovered by experience. For purposes of this report it is possible only to recite physical means for reaching the Territory which were available in normal times, together with additions to these facilities which prosecution of the war has necessitated, but which may remain as factors in happier times.

AIRLINES. It has been aptly stated that although Alaska may not be ideally suited for aviation, aviation is ideally adaptable to Alaska. In this extensive but thinly populated land, with twice the area of Texas and one-tenth the population of Rhode Island, many families think little more of a weekend 700-mile flight from Fairbanks to Juneau than would the Bronx resident of his Sunday jaunt to Coney Island. So has the gap been bridged from dogsled to silver wing. Commercial airlines are an integral part of Alaska's economy.

Regular air service to Alaska is at present north along the Pacific coast from Seattle or northwest through Canada from the great Midwestern centers. Pan-American Airways maintains flights from Seattle to Fairbanks, with stops at Juneau and Whitehorse, and from Fairbanks to Nome. From Canadian Pacific planes on the Edmonton-Whitehorse run the traveler may transfer to Pan-American or reach Fairbanks by Alaska Airlines.

Alaska is criss-crossed by scheduled flights of more than a score of lines, all within its borders except for those between Fairbanks and Whitehorse. Other routes which affect highway use are those of Alaska Airlines from Anchorage to Fairbanks and to Juneau, and of Woodley Airways between Anchorage and Juneau. Centering mainly at the four largest cities, smaller companies serve settlements in all parts of Alaska. Pontoon equipment is used in the coastal area, permitting close approach to business centers. Planes used in the

Interior are fitted with ski-landing-gear for winter travel.

In addition to regularly scheduled flights, much charter business is carried on by the airlines. Most activities of this nature have heretofore been utilitarian in character, serving business needs and accomplishing travel impossible or much slower by other means. It is safe to predict that when pleasure travel to Alaska is resumed, chartered plane trips will assume more and more importance. Some of the outstanding scenic spectacles, Glacier Bay and the Valley of Ten Thousand Smokes, to cite specific instances, may thus be brought within the ken of thousands of tourists whose time allowance within the Territory can not be extended to include the weeks required for access by boat, even if the requisite special arrangements can be effected.

Development of military airfields in Alaska has been extensive during the war. Number, location, and character of these facilities are military data not to be generally disseminated, in the interest of public safety. Suffice it to say that they are many and excellent, and that the whole Territory is blanketed. What disposition will be made of them after the peace remains to be seen. Whether they are maintained under military operation or are transferred to local governmental or private administration, it is not unlikely that they will be available for landing and servicing of privately owned planes. It seems a generally accepted fact that planes will be used for personal transport after the war in the same manner although probably not to the same extent that automobiles have been used heretofore. No great stretch of imagination is required to envision future family vacations in Alaska as greatly facilitated and enriched by such personal air-transportation.

WATERWAYS. Before the development of commercial aviation Alaska was reached from continental United States only by sea. Steamship facilities have been maintained but have not been improved during the last fifteen years. In the light of increasing public interest in Alaska it appears that

addition of faster and more modern vessels to the various fleets would be justified.

As may be expected, Southeastern Alaska, with more than a third of the population and closer to the States, enjoys better steamship service than other parts of the Territory. Steamers operated by Canadian Pacific Ry. ply between Vancouver and Skagway, calling at Prince Rupert, Ketchikan, and Juneau, and making about three round trips a month. Connecting ferries between Vancouver and Seattle complete the trip.

Three American steamship lines operate regularly between Seattle and Alaska; the Alaska Steamship Co., Alaska Transportation Co., and the Northland Transportation Co. Normally, the only one of these which goes beyond Southeastern Alaska is the Alaska Steamship Co. Scheduling weekly trips as far as Seward the year around, with increased summer sailings, it furnishes monthly transportation through the tourist season to the Alaska Peninsula, Aleutian Islands, and north to St. Michael and Nome.

The American lines all emphasize freight service more than passenger accommodations. The newest ship was built in 1929 and rated speeds average not more than 12 knots. With protracted stops at the various ports of call, for handling fish and other freight, about five days must be allowed for the thousand-mile trip from Seattle to Juneau. Ships of the Canadian line give more consideration to passenger business and their stops enroute are briefer, but with the transfer at Vancouver the elapsed time from Seattle to Juneau will hardly be decreased more than a day.

Beyond the indicated modernization of steamship services to Alaska another new project is required if apparent postwar demands are to be met. The British Columbian seaport of Prince Rupert is both a railhead and the terminus of highway connections from the East. It lies roughly midway between Vancouver and the head of the Inside Passage, not more than 100 miles from Ketchikan, most southerly of Alaskan cities and one of the four largest. Initiation of ferry service between Prince Rupert and Skagway would complement established lines and would also facilitate and increase tourist travel. Brief stops should be made at Ketchikan, Wrangell, Petersburg, Juneau, and Haines. Equipment used should be modern and fast, capa-

ble of a minimum speed of 18 knots, with adequate accommodations for passengers and a special, quick-loading deck for automobile transport.

Aside from the ocean steamship connections from the United States to Alaska, there is opportunity to see much of the Territory and of the adjacent Yukon Territory in Canada from stern-wheel steamers which ply the Yukon River in summer, following the same route used in gold-rush days. The White Pass and Yukon Ry. operates steamers from Whitehorse to Dawson, capital of the Yukon Territory, and to the Alaskan communities of Circle, Fort Yukon, Tanana, and Nenana. Circle is connected by the Steese Highway with Fairbanks, 162 miles away. Its name was acquired in the mistaken belief that the site was on the Arctic Circle, which it really misses by about 50 miles. At Fort Yukon the river actually does cross north of the Arctic Circle for a matter of 30 miles before slanting southward to Tanana, which lies at the junction of the Yukon and Tanana Rivers. Upstream on the Tanana, at the point where it is joined by the Nenana River, is the town of Nenana, where connection is made with the Alaska R. R., north to Fairbanks and south to Anchorage and the seacoast. The Alaska R. R. also operates steamers on the Yukon between Tanana and Marshall. Transfer between "upper river" and "lower river" steamers is accomplished at Tanana.

Various locations, not served by scheduled lines, may be reached by chartered launches or specially arranged trips. Demands upon his time will not permit the average tourist to indulge to any great extent in such special excursions. They will fall within the programs of those who visit the Territory for specific business or scientific purposes.

RAILROADS. The Alaska Railroad, owned by the United States and operated under the Department of the Interior, connects Pacific tidewater at Seward with Fairbanks, major city of the Interior. It is an important factor in Territorial economy. The main line passes through Anchorage and branches tap the Matanuska agricultural community and the coal fields east of the through route. A connection to Prince William Sound at Whittier, newly completed, may well assume significance in postwar travel. At Nenana transfer is made to steamers which ply the Yukon and the Tanana in summer.

Mount McKinley National Park is reached only by the Alaska R. R. or by air.

The White Pass and Yukon Ry., completed in 1900, obviates previous hazards of travel between the Alaskan port of Skagway and the Canadian river town of Whitehorse. The narrow-gage line is 111 miles long, although only about 20 miles of it are in Alaska. From Skagway the railroad climbs 2,887 feet, through wild and rugged scenery, to the international boundary at White Pass. During the present war, under military operation, the White Pass and Yukon has been the scene of activities unprecedented locally since the gold-rush of 1898. Over it have traveled the thousands of soldier and civilian workers who have pushed the Alaska Highway east and west from Whitehorse, and the thousands of carloads of equipment, materials, and supplies needed for the undertaking. Its chief importance to the tourist will lie in his ability to retrace this scenic and historic route, between termini steeped in the story of the stirring past, of which evidences still abound, and stories of which are still related by men who were active participants.

The Copper River and Northwestern R. R. from Cordova to Kennicott by way of Chitina, 195 miles long, was built to provide access from tidewater to the rich Kennicott copper region. It was finished in 1911 and its operation suspended in 1938, when high grade, easily-accessible ore was exhausted, having hauled to the sea ore to the value of more than four times its construction costs. The road is no longer of particular significance in the field of recreational travel, although tracks still remain in place from Chitina to McCarthy and mail is delivered biweekly from Chitina by gasoline speeder.

The Yakutat and Southern, which handles nothing but freight over a length of 14 miles of standard-gage track, does not enter into the picture of tourist travel, and will not be discussed here.

The Alaska R. R. schedules one passenger train each week northbound, and the same southbound. The trip from Seward to Fairbanks takes two full days, with overnight stop at Curry. Additional service is rendered by attachment of passenger coaches to freight trains. Present schedules and operations reflect war conditions; freight traffic is heavy and tourist travel light. If the expected postwar expansion of tourist visitation material-

izes, the railroad will no doubt furnish better passenger service.

White Pass and Yukon Ry. operations have been influenced even more by the war than those of the Alaska R. R. Under peacetime conditions trains were scheduled to connect with steamer sailings from Skagway, running time from Whitehorse being about 8 hours. Wartime passenger service has been almost daily, with freight trains moving almost incessantly. Postwar activities may well lie somewhere between these limits.

HIGHWAYS. With completion of the Alaska Highway it is possible, for the first time, to reach many points in the Territory by road from the States, without recourse to steamship or railroad travel.

Motor stage lines now function commercially over the Glenn and Richardson Highways from Anchorage to Valdez and Fairbanks, and on the Steese Highway from Fairbanks to Circle and Circle Springs. The Northwest Service Command of the United States Army has operated large, cross-country type busses, for military and mail transportation, over the Alaska Highway from Dawson Creek to Whitehorse and to some extent between Whitehorse and Fairbanks.

Travel over all roads is reduced to the minimum and lengthy pleasure trips are largely eliminated, in conformity with wartime requirements. With the advent of peace and the accompanying relaxation of restrictions upon pleasure travel, systems of road transport to and in Alaska will need expansion and modernization. Bus lines will perhaps open regular runs between midwest population centers and Alaskan cities, over the Alaska Highway



Figure 17.—Alaska stage lines, then and now.

and less publicized parts of the highway systems of the United States, Canada, and Alaska. The international character of such operations need constitute no barrier to the undertaking.

Special vacation tours and bus caravans would be particularly inviting and appropriate, perhaps more so than use of scheduled facilities. Visualize for instance, a party of 100 teachers leaving Chicago at the end of the school year in three commodious busses and spending the vacation period in visiting Alaska and in viewing and photographing the sights which may be seen from the highways. Trained and experienced drivers and couriers would relieve the teachers of burdensome details of car operation and maintenance and of procurement of lodging and food, would call attention to historic places, scientific phenomena, or outstanding views which might not be noted otherwise, and would add pleasure to the journey. It may be assumed with safety that the geography lessons taught by such returned tourists will be more vivid and lasting than those based upon text and collateral reading alone.

For the convenience and advantage of those who would reach Alaska by other means, an inter-related system of bus service within the Territory is of utmost importance. Here appears a most attractive opportunity for an enterprise profitable to him who undertakes it, while at the same time building up the economic structure of the Territory without depleting its resources. Advisability is suggested of establishing necessary and suitable controls over the enfranchisement and operation of such enterprises, not to penalize private undertaking and to restrict opportunities therefor, but simply to guarantee safety to the thousands of passengers who will be carried.

For every person who travels the Alaska Highway by bus to reach the far vacation land of the great northwest there will be perhaps a dozen who will go over it by private automobile. Advantages of this method of transport are obvious. Flexibility of program is assured. Travel may be interrupted at will to explore intersecting streams which offer evidence of good fishing. Scenes worthy of being photographed are far more frequent than scheduled bus stops. If cloud wreaths dim the majesty of circling mountain heights, there is the possibility of remaining overnight, in the hope that the mor-

row may bring more fortunate conditions. Many tourist parties will have determined in advance a list of places having special appeal to their particular interests; with transport schedule under complete control of the party, such places may be studied at leisure and to complete satisfaction of individual desires. A small percentage of tourists, versed in the arts of camping, will wish to be independent of more sophisticated accommodations, and to carry and use its own camping and cooking outfit. For such, the private motor car offers the most convenient form of travel, perhaps with a detachable trailer for luggage and camping outfit.

COMBINATIONS. No one method of travel affords satisfactory coverage of Alaska. The flexibility obtained through use of private motor cars has been stressed, but motorists must reach Mount McKinley National Park by rail, and will miss much if they do not include sea and air travel in their plans. Mount St. Elias as viewed from the Gulf of Alaska, the tremendous expanses of Malaspina, Columbia, or Bering Glaciers, the dappled chromatic loveliness of autumn-foliaged valleys as glimpsed from soaring flight; how much do these complement and expand impressions gained from the roadside?

Combinations of means of access to Alaska's most salient interest points are almost infinite. Those which affect the use of highways for recreational purposes may be grouped in three general classes, illustrated by the following examples.

First there is the case of main travel by private automobile, with side trips by other means. Those passengers who were interested in the Yukon River and its romance could diverge from the party at Whitehorse, steamboat downstream to Dawson and Circle, travel by bus to Fairbanks, and there rejoin the remainder of the group.

On reaching Fairbanks the car might be garaged while several days were spent in visiting Mount McKinley National Park by rail. Should one member of the party elect not to visit Mount McKinley, he might volunteer to drive alone to Whitehorse, there to be reunited with the other members, who would enjoy the experience of plane flight from Fairbanks to Whitehorse, thus viewing from the air on the return the terrain explored northbound by road.

To see both Anchorage and Valdez by motor

car, there must be double passage over the entire length of road connecting them. Here again, the trip in one direction might be made by the driver alone, while other members of the party voyaged by rail and sea between the cities.

The second classification embraces those who will reach Alaska by other means than the Highway, but who will do at least a part of their sightseeing by road, using rented cars, such bus lines as may be operated, or both.

In the third group may be placed those whose main dependence for sightseeing will be upon their cars, but who will make the trip between the States and Alaska, either going or returning, by coastwise steamer, shipping their cars by freight in the same vessels in which they take passage.

Such itineraries may have been prompted by two reasons. Tourists may have been aware, in advance, of the delightful aspects of the approach by Inside Passage and so have arranged the north-bound trip by that means. On the other hand, starting overland by way of the much-publicized Alaska Highway, they may have been so surfeited by monotonous miles that return by the same route will hold no charm and the alternative travel by sea will appear attractive.

The extent to which this group will be active in Alaskan travel depends largely upon the quality and cost of steamship accommodations offered after the war. Initiation of the Haines-Prince Rupert ferry would have a stimulating influence, as would also a much-to-be-desired lowering, by existing carriers, of freight rates on automobiles.

TOUR ROUTES. It is not proposed to list here all tour combinations which may be chosen by those who will travel to Alaska; such an undertaking could be extended to extravagant proportions and little good accomplished. Two of the three general groupings of tours previously indicated will be performed with the family automobile, the other without it. Figures 18 and 19, following this chapter, portray in schematic form typical examples of possible future trips with and without personal car.

Taking first the trip by car, it is to be noted that consideration has been given to access either from the western tier of states or from the midwest and eastern states wherein is found the great mass of our national population. Whatever the origin of

travel, the traveler is routed by way of Glacier National Park in the United States and the famed Banff National Park (Lake Louise) in Canada.

Mount McKinley National Park can not be reached by highway yet; it is therefore assumed that the car will be left at Fairbanks and the round trip to McKinley Park Station made by the Alaska R. R. This is the only period during which the traveler will be away from his car; from Haines to Prince Rupert the mooted ferry is assumed to be operative.

Beyond Kluane Lake, complete itineraries require a considerable amount of travel to be retraced in a direction opposite to first coverage. Because of the branching nature of the Alaska road system, this is necessary if the terminal communities are to be visited. As many of these loose-end, round-trip jaunts may be deleted as availability of time demands or fancy dictates.

The river trip from Whitehorse to Circle may be included, if desired. The car may be shipped as freight on the boat, to accompany the party, or one member may be willing to forego the river voyage and drive to Circle.

On the second typical tour, that without personal car, it is assumed that highway travel will be by means of bus lines that may be expected to develop. Eastern and western origins of travel are likewise considered. It is assumed that termini of common travel, Edmonton and Seattle, will be reached by rail from any section, though both cities are well served by air. Glacier National Park, (though not Banff), may be seen by tourists from east or west.

This trip includes rail passage on both the White Pass and Yukon and the Alaska R. R. Tourists traveling by car will find it less convenient to utilize rail travel, since round trip journeys are required to bring them back to their automobiles.

The Yukon River steamer trip may also be included in this itinerary. It balances against flight from Whitehorse to Fairbanks and travel by bus or rented car from Fairbanks to Circle. Repetitious travel over the Steese Highway is avoided, but no chance is afforded to see the Tanana River valley between Fairbanks and Tok Junction. The plane-tour should be made clockwise, for the best air view of autumn foliage; the boat-tour would best be made counter-clockwise, for faster passage downstream.

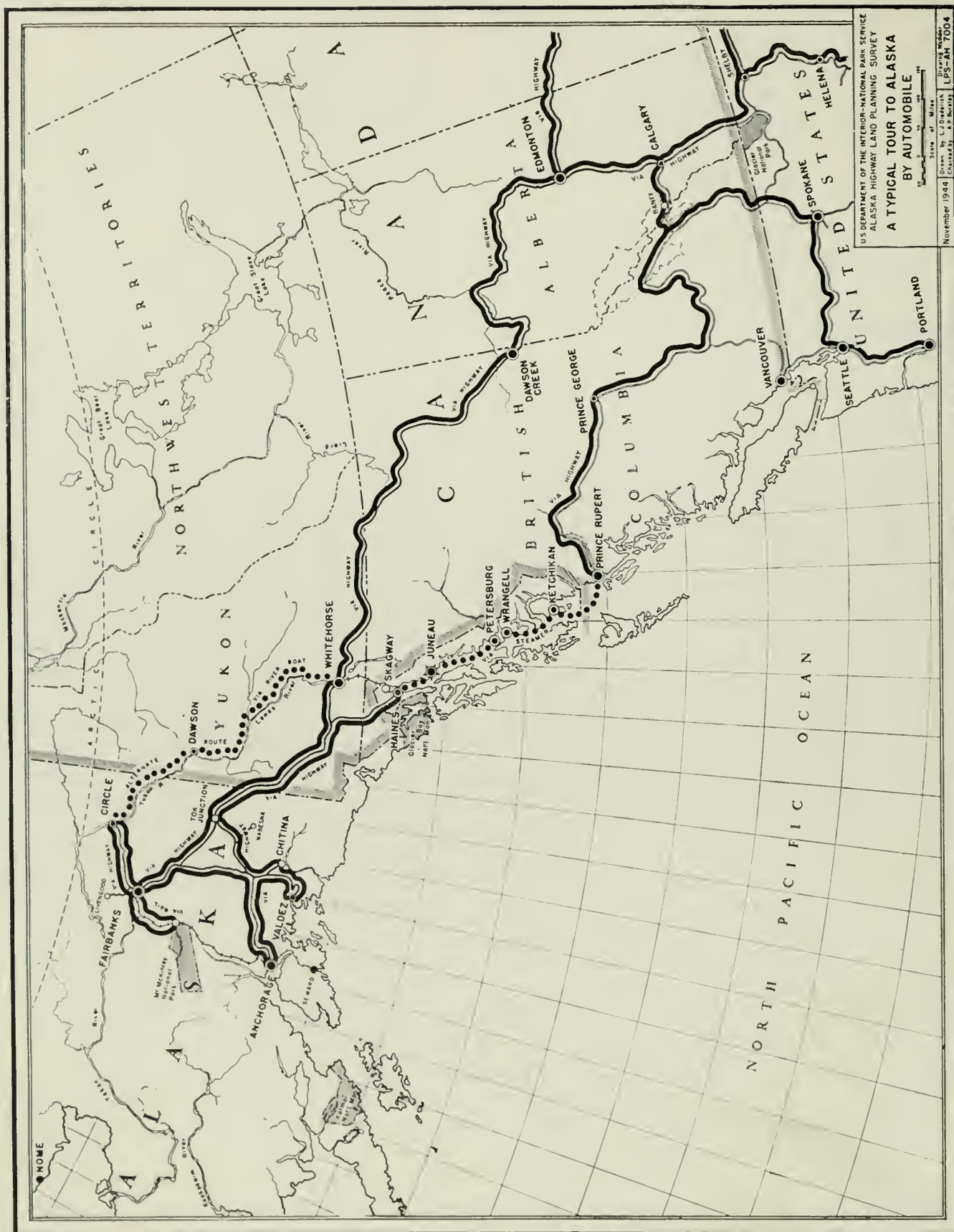


Figure 18.

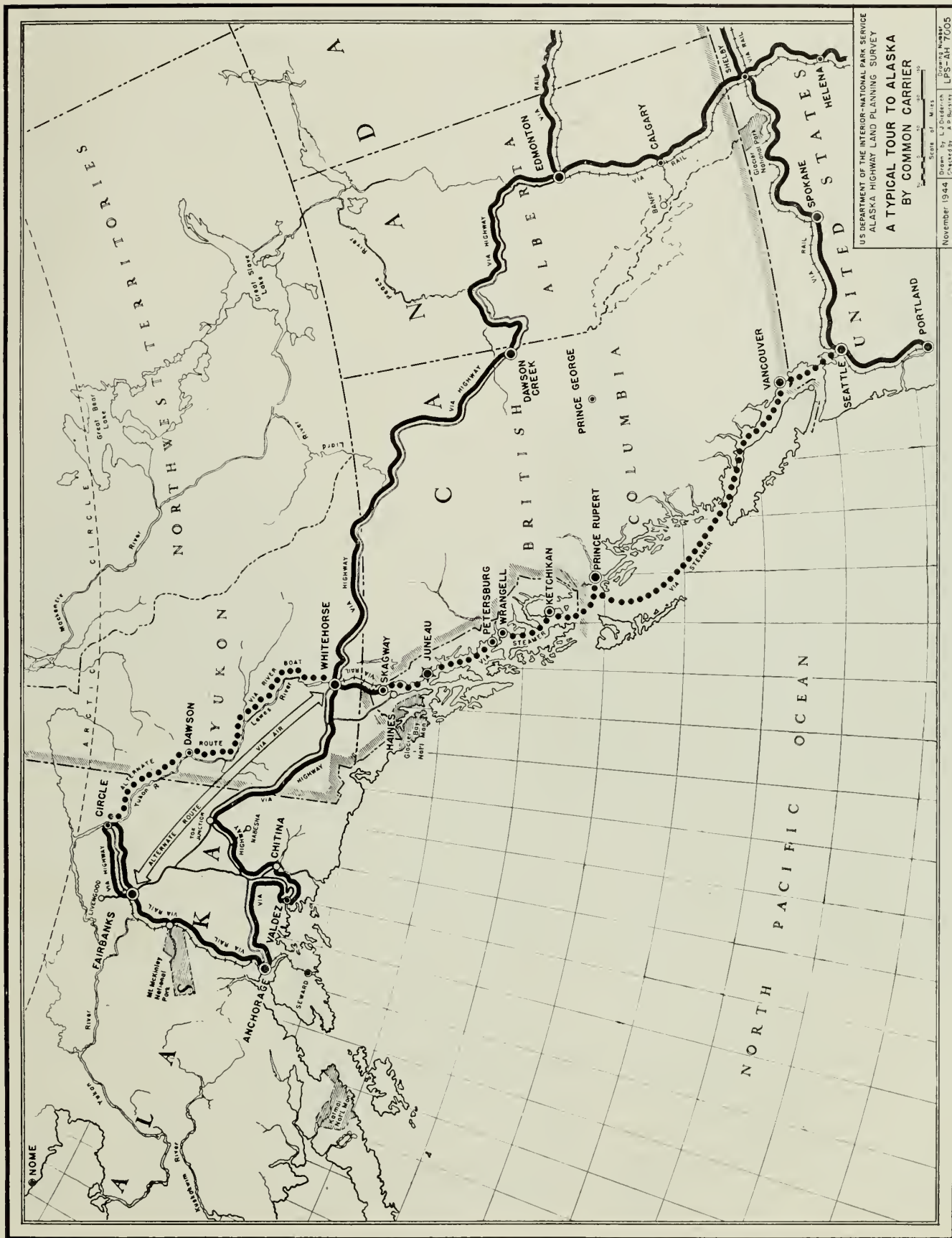


Figure 19.



Figure 20.—North from the sea by Richardson Highway.

MAJOR ROADS OF ALASKA

In the past, Alaska's roads have been mainly disjointed, relatively short stubs, branching out from such population centers as Anchorage, Fairbanks, and Nome. Many have been "winter roads", tracks through the forest, sustaining travel by automobile only when boggy sections through which they pass have been frozen sufficiently to prevent miring-down. Of prewar roads, only the Valdez-Fairbanks connection, the Richardson Highway, can be classed as of truly inter-city character.

One requirement of the Nation's war program has been for highway access to points in Alaska not hitherto reached by that means. With this has come an expansion of facilities of this nature which gives the Territory a first nucleus of coordinated roads, joining major cities with each other and the cities of Canada and the United States. The way in which this has been accomplished can be seen from figure 22, facing the following page.

THE ALASKA HIGHWAY. Undertaken as a requirement of military security, and under the stress of apparent urgency, the Alaska Highway may eventually prove of even greater economic than military significance. Alaska has been the goal of thousands of tourists; completion of this first road link with Canada and the States may increase greatly the number of these potential friends of the Territory.

Unlike the Richardson and some of the other roads in Alaska, this highway has not developed through continued improvement of early trails; for the most part it has been cut through untracked wilderness during the seasons of 1942 and 1943.

The total length of the Alaska Highway, including spur and terminal branches, is about 1,660 miles, of which 1,338 are in Canada. Road distances from Dawson Creek to some of the terminal Alaskan cities are as follows:

Anchorage—1,647 miles	Haines—1,175 miles
Fairbanks—1,532 miles	Valdez—1,586 miles

History. Construction of a highway connecting

Alaska with the States is not a new thought. For years, many of those most interested in the welfare and growth of the Territory have realized and urged the advisability of such a project, have studied possible routes, and have sought means of effecting the desired result.

As early as April, 1931, pursuant to an Act by the 1929 Territorial Legislature, the Alaska Road Commission prepared and published a report entitled "The Proposed Pacific Yukon Highway." By specific authority of the Congress, the President designated three special Commissioners in 1930 "to cooperate with representatives of the Dominion of Canada in a study regarding the construction of a highway to connect the northwestern part of the United States with British Columbia, Yukon Territory, and Alaska". The report of the United States Commissioners, to the President, was dated May 1, 1933, but specific action was lost in the economic depression which was then prevalent.

On August 16, 1938, again by specific authority of the Congress, the President appointed a five-member Alaskan International Highway Commission for the purpose of making a similar study. Its report, dated April 20, 1940, was received by the Congress, referred to the Committee on Foreign Affairs, and printed as House Document No. 711 of the 76th Congress, 3rd Session.

One essential difference is apparent between the routes discussed in these reports and the one upon which the Alaska Highway is now built. Previous proposals contemplated the utilization of existing Canadian roads from Seattle and Spokane to Prince George or Hazelton, thereafter following the so-called "Rocky Mountain Trench" lying between the Pacific Coast Range and the Rocky Mountains. The Alaska Highway stems from mid-western rather than western states, and its southern portion lies east of the Rocky Mountains.

Basic to the selection of this location is the logic which finally determined construction of the road.

Air transport had come of age, whether for civilian or military purposes. The great-circle course from the North American center of population to the Orient lies generally along the route which the Highway follows. The Allied Nations were faced with threatened Japanese invasion of Canadian and United States territory by way of Alaska. Long range plans for offensive thrusts toward the Orient indicated the necessity for availability of speedy movement of personnel and war materiel to Alaskan points. The time-honored method of steamer travel was too slow for dependence in crises, vulnerable to hostile naval actions as well. The air was the answer. The Rockies interposed a defensive screen from less favorable flying weather over the Pacific coast, and from possible coastal attack. Canada established a series of small airports along the direct, great-circle course, later to be enlarged and improved by the United States. Regardless of its function in times of peace, the Alaska Highway has been planned and built primarily to facilitate the development of these fields and their operation for military purposes.

Dawson Creek became the southern terminus of the Highway, not because of road connections from the southeast, which are anything but favorable, but because it is the present "end of steel" from that direction, a railhead and a base for operations. Similar bases were established at other railheads, at Whitehorse on the White Pass and Yukon, and at Fairbanks on the Alaska Railroad.

At first, it was planned for engineer troops to thrust a pioneer road through the wilderness, and for a group of civilian contractors under direction of the Public Roads Administration to follow with

construction of a standard highway, using the Army pioneer road for access. Plans were later modified so that, in many places, work of the contractors was improvement of the pioneer location rather than construction of an entire new road. By this means a reasonable compromise was achieved between speed of completion and standards of construction.

Acclaim has been accorded, and rightfully, to the pertinacity and resourcefulness which accomplished completion of the pioneer road in 1942, to willing endurance of physical hardships and to victory over difficulties in connection with services of supply. Progress during 1943 was less spectacular but no less effective. During that summer the character of the road changed from that of a passable trail to that of a gravel road of high standards, with permanent bridges and drainage structures, adequate for tourist or commercial traffic, if maintained in accordance with usual practice.

The Route and its Recreational Resources. Road approach from the States to Dawson Creek is long and onerous. The population center of the nation at the time of the 1940 census was about 36 miles south of Terre Haute, Ind. The shortest main highway distance from there to Dawson Creek, by way of Edmonton, is 2,676 miles, and to Fairbanks 4,208 miles. The drive across the level prairie land of North Dakota and southern Saskatchewan is not at all inspiring and will be regarded by most tourists as a necessary chore before enjoyment of the trip can really begin. In general, before reaching the Alaska Highway, road standards decrease as distance from concentrations of population increases. The highway system of western Canada, because of the ratio between mileage and persons served, does not yet afford ease of travel common in the States. In 1940, the Province of Alberta maintained a total of more than 92,000 miles of road; a typical mile would have been paved 4 feet, bituminous-surfaced 35 feet, graveled 172 feet, and plain earth for 5,069 feet. The meandering route from Edmonton to Dawson Creek is of such low standard that it will discourage many potential visitors to Alaska from going farther afield. Until it has been improved, full benefits from recreational travel will not be realized from the Alaska Highway.

Terms of the agreement between the United



Figure 21.—Section of pioneer alignment retained, Alaska Highway.

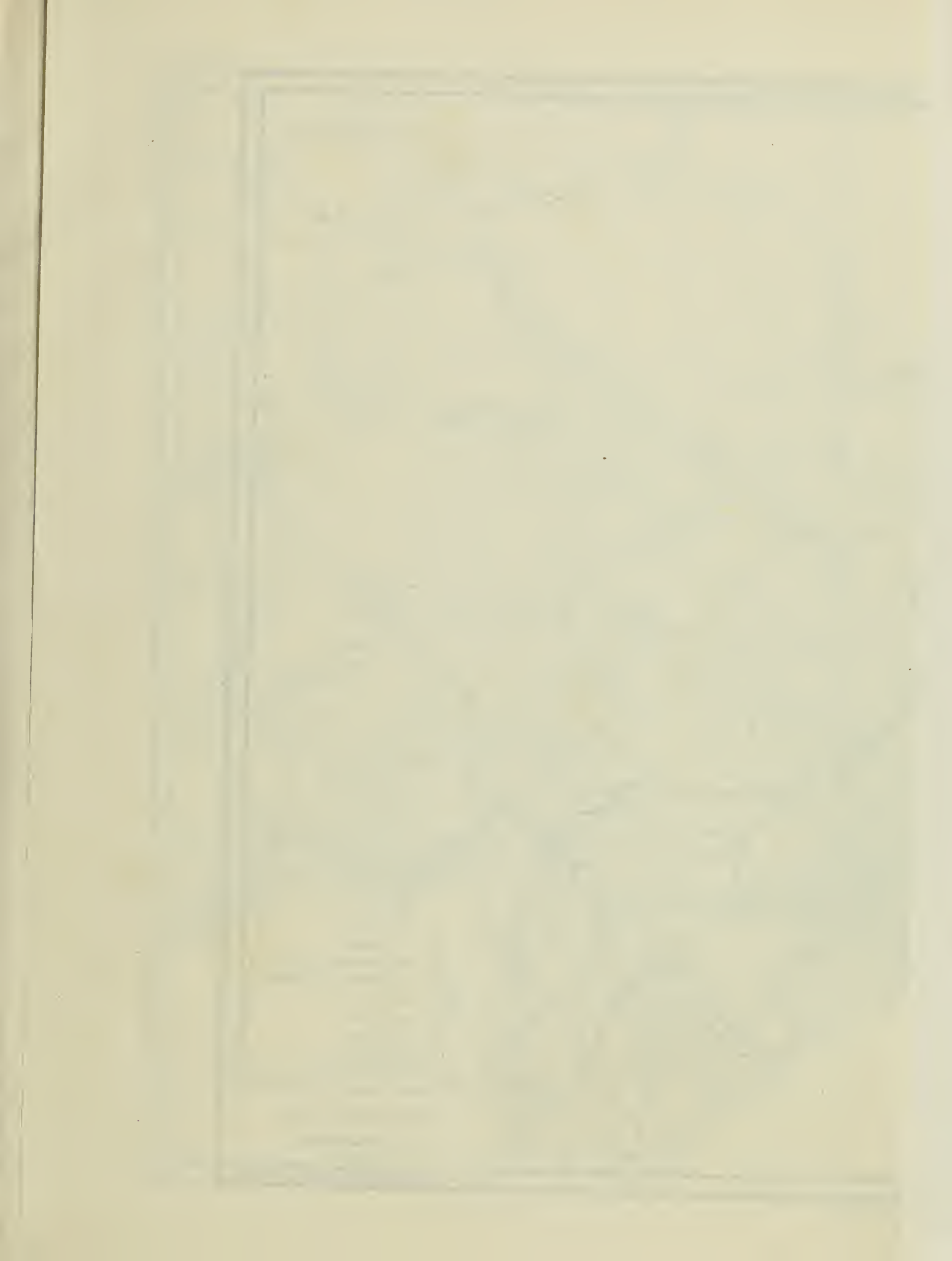




Figure 22.

States and Canada covering construction of those parts of the Highway which lie within the Dominion provide that Canada shall furnish the necessary rights of way and that the United States shall construct the Highway and maintain it "until the termination of the present war and for six months thereafter unless the Government of Canada prefers to assume responsibility at an earlier date of so much of it as lies in Canada". They further provide that at the war's end "that part of the highway which lies in Canada shall become in all respects a part of the Canadian highway system, subject to an understanding that there shall at no time be imposed any discriminatory conditions in relation to the use of the road as between Canadian and United States civilian traffic". There appears no stipulation of degree of maintenance by either government.

From Dawson Creek the Alaska Highway follows an old Provincial road 50 miles to Fort St. John, crossing on the way one of Canada's largest rivers, the Peace. From Fort St. John to a short stub road connecting with the Fort Nelson airport the route is through a rolling, wooded terrain, much of the way along the ridges, in order to avoid, so far as possible, the muskeg country to the east.

Fifty miles west of Fort Nelson the road enters the foothills of the Rocky Mountains, and follows the Tetsa River to Summit Lake (elevation 4,212), the highest point on the Alaska Highway. Muncho Lake, 70 miles beyond the divide, is one of the beauty spots of the Canadian journey. Dropping down to the Liard River, another great northern stream, the Highway emerges from the mountains, crosses the Liard, and follows its northerly bank to Watson Lake, which lies just inside the southern limits of the Yukon Territory. Here again, a stub road leads to a major airport.

Progress is generally westward from Watson Lake, without great deviation from the British Columbia-Yukon boundary as far as Teslin Lake, crossing from MacKenzie to Yukon drainage and encountering much swampy terrain. Skirting the northeast shore of Teslin Lake, the highway crosses its outlet river, and swinging southwest to Marsh Lake, follows the Lewes River to Whitehorse, with a detour possible by way of Carcross, a community on Lake Bennett, of considerable importance in the days of '98 and even now connected by summer

steamer with Atlin, mining center of northern British Columbia.

Whitehorse is the only community of consequence from beginning to end of the Alaska Highway, and here the tourist will do well to break his trip and tarry awhile in contemplation of the changes which the years have wrought.

The Bonanza strike of 1897, near Dawson, brought between 30,000 and 50,000 persons to the Klondike within a year. Many of these passed through what is now Whitehorse, choosing the hazardous trails from Skagway by way of Chilkoot Pass or White Pass. Reaching Lake Bennett, the gold seekers provided themselves with boats for the journey by water to Dawson. The most dangerous part of the trip was at Miles Canyon, through which the Lewes River rushes in a series of rapids, called Whitehorse because of a fancied resemblance of wave-foam to flying manes. At the foot of the rapids boats were bailed out and gear spread to dry. Here on the east bank the old town of Whitehorse sprang up, across the river from the present site. Jack London was one of those who piloted inexperienced boatmen through the rapids, and Robert Service worked as a clerk in Whitehorse and in Dawson. Rex Beach and Joaquin Miller were other writers who experienced the thrills of the Klondike.

In 1940, Whitehorse was a sleepy reminder of the boom-days town of 1898. With a population of about half a thousand, it was primarily important as the terminus of the White Pass and Yukon Ry., a transfer point from railroad to river steamer, as a supply center for the people of the surrounding



Figure 23.—Yukon River steamer leaving Whitehorse.

country, and as an outfitting point for expeditions of miners and hunters.

When construction of the Alaska Highway began, Whitehorse once more became a jam-packed center of hectic bustle and frenzied industry. Headquarters of the Northwest Service Command, established by the Army to handle the Highway, it teemed with the activities of that agency. It is a key location in the much-mooted petroleum recovery system whereby crude oil is pumped from the Norman Wells field to new refineries at Whitehorse, whence the products are distributed by pipe line in both directions for the entire length of the Highway and to tidewater at Skagway. Although the end of the war will bring lessening of congestion at Whitehorse, some of the operations there begun will no doubt continue under peacetime conditions.

Westward from Whitehorse the Highway follows the general alignment of old trails in the valleys of the Takhini and Dezadeash Rivers to Kluane Lake. At Champagne, a settlement at the junction of these trails with a former one through Chilkat Pass from the south, atop a knoll beside the road, is an old burying ground in which the Indian graves are covered by miniature houses, complete in detail of windows and curtains, according to tribal custom.

A hundred miles west of Whitehorse the Highway is joined by the present day version of the old trail through Chilkat Pass, the Haines Military Road or Cutoff, integral and important part of the Alaska Highway. This road, 159 miles long, follows for 42 miles a road built earlier by the Alaska Road Commission from the port of Haines to the Canadian border. The next 50 miles are in British Columbia, passing through singularly beautiful Chilkat and Three Guardsmen Passes. The last part of the way lies within the Yukon Territory, skirting Dezadeash and Kathleen Lakes, and joining with the through route of the Alaska Highway to form the northeast boundary of a tract of some 10,000 square miles which has been reserved by the Dominion Government so that it may be available, in present condition, for establishment as a national park.

About 136 miles west of Whitehorse the Alaska Highway reaches Kluane Lake and then follows its southwestern shore for about 40 miles to Burwash Landing. Kluane ranks with Muncho Lake in scenic aspect, but the pioneer road, climbing to a



Figure 24.—Haines Cutoff—only road link to Southeastern Alaska.

vantage point at Soldier's Summit, offered more spectacular vistas than does the present easier gradient along the water edge. Kluane at the southern end, and Burwash Landing near the northerly limits of the lake, are long-established trading posts. Before the relative ease of access brought by the Highway, Burwash Landing was expeditionary headquarters for many a party of wealthy big-game hunters. The Highway will affect this activity considerably.

From Kluane Lake the Highway takes to the foot-hills, bridges the Duke and Donjek Rivers and comes to a high-level canyon crossing of the White River. Downstream is displayed an instance of "braiding" which is to become so familiar later in the glacial streams of Alaska. This section is characterized by views of the St. Elias Mountains to the south, particularly up the valleys from stream crossings.

From the White River to the Alaska boundary, at the 141st meridian of west longitude and 307 miles from Whitehorse, the trend is more to the north, through low hills, across many streams, and past numerous lakes, smaller than Kluane but interesting as the panorama unfolds. The Highway crosses the border in a swampy valley. North and south stretch narrow slots, cleared through the wilderness to define the boundary between two great Territories.

Five miles beyond the border the road climbs from the swamp, and thereafter follows the north side of the Tanana Valley. At first the highway dips and swirls amid the light-green summer foliage of birch and aspen, through pleasant rolling ter-

rain; later the enclosing hills incline more steeply toward the valley floor, and from the way along the slope more frequent vistas to the south are opened through the now prevailing spruce. The level foreground is strewn with lakes of varying size, and near at hand the snaky trace of the Chisana accompanies the course of the Highway. Enclosing the valley on the south are the Nutzotin Mountains, and beyond these are revealed the higher summits of the Wrangells.

Forty-three miles from the border a short branch road crosses the Chisana and leads to the Northway airport, 6 miles south among the lakes. Five miles beyond this point the Highway overlooks the Chisana and Nabesna Rivers, glacier-born but now calm, as they unite to form the Tanana.

As the Highway proceeds the prospect is without decided change. The northwestward march of the Nutzotin Mountains is continued by the Mentastas. Tanana's course is not less tortuous than that of tributary Chisana; occasional ox-bows and back-water channels attest the constant struggle to achieve its final bed. Valley lakes are more evident than ever; for more than a mile the Highway follows the shore of Midway Lake, which, over 3 miles long, is said not to exceed 8 feet in depth.

Swooping across the Tanana 83 miles beyond the Yukon line, the Alaska Highway forsakes the hills and fleets arrow-straight for 11 miles across the level valley floor to Tok Junction, bridging the Tok River about midway. This is a relocation of the preliminary route, which followed the hills north of the Tanana, crossed the river downstream from its juncture with the Tok, and thus avoided bridging the lesser stream. At Tok Junction, now



Figure 25.—The Highway bridges the Tanana.



Figure 26.—Nearing Cathedral Rapids, Alaska Highway.

only a meeting place of roads in the surrounding monotony of level and uniform spruce growth, the Mentasta Road section of the Alaska Highway swings southward to connect with other highways leading to Valdez and Anchorage.

Twelve miles from Tok Junction, pursuing the tangent course toward Fairbanks, the Alaska Highway is crossed by a short diagonal road. To the left is a radio beam station, to the right the Tanacross airport, separated by the Tanana River from the Indian village known as Tanana Crossing.

Five miles beyond, the Highway leaves the valley floor and again resumes its rolling way, this time along the lower slopes south of the Tanana. The valley narrows, and the hills at Cathedral Rapids confine the route. Beyond this brief constriction the road rides a series of plateaus which are somewhat elevated above the river, dipping slightly to cross the main streams as they are encountered, the Robertson, Johnson, Little Gerstle, and Gerstle.

Alignment is now easier, with sweeping curves and longer tangents than prevail east of the Tanana. About 75 miles from Tok Junction, before reaching the Gerstle, begins a tangent which continues, with slight deviations, the remaining 33 miles to the technical end of the Alaska Highway, its junction with the Richardson, about 10 miles south of the point where that highway crosses the Tanana River.

This section is scenically mediocre, resembling that from the Tanana River bridge to Tanacross. Alignment and profile are monotonously straight, and the way is hedged by solid spruce growth, of little interest to the traveler. Occasionally the

tedium is enlivened, at stream crossings, by views northward across the broadened valley or southward to the Alaska Range. Perhaps development of this section for agriculture, to which it seems suited, will open vistas and add interest to the scene.

Return now to Tok Junction and the Mentasta Road southward along the general route of the old Eagle trail of Captain Abercrombie's day. The way lies straight and level for 8 miles across the broad confluence of Tok and Tanana Valleys. Thereafter, twisting and turning, the road climbs the narrowed valley of the Tok, first on the west bank and later on the east, until the river swings sharply away to the west, whereat the route abandons it and veers up the valley of the tributary Little Tok as far as Mineral Lake, about 34 miles from the start at the highway junction. Swinging westward along Mentasta Creek and through Mentasta Pass, the road rounds beautiful Mentasta Lake, crosses the Slana River, and drops down its westerly bank to the almost deserted settlement of Slana, where it joins the Abercrombie Trail. The distance covered from Tok Junction has been 72 miles; Slana is 64 miles from the Richardson by Abercrombie Trail.

Travelers for recreation will find Mentasta Road the most engrossing portion of the Alaska Highway. Its scenic environment is superior and the route interesting, more intimate in character than the Highway generally. In following one of the defiles through the Alaska Range, it mounts to an elevation higher than any traversed by road in the Tanana Valley. Near the pass, 50 miles from Tok Junction, Mentasta Lake offers pause in the hur-



Figure 27.—The Tok River.



Figure 28.—Mentasta Road, in the valley of the Little Tok.

ried schedule, and invites dalliance by its mountain-mirroring waters. The lake is almost completely encircled by intermediate heights of the Alaska Range, yet these are at such distance that they appear in pleasing perspective, and not so close that only immediate foreground slopes are visible. The effect is of spaciousness and of extended views rather than of restriction. Mentasta is almost the only spot along the Alaska Highway which merits development of a recreational nature to provide for more than a casual overnight stop by the tourist.

Standards of alignment and construction have been somewhat lower for the Mentasta Road than for other Alaskan portions of the Highway. This may be due to the more rugged nature of terrain traversed, and perhaps also to the greater military significance of highway access from the east toward Fairbanks. The present road over Mentasta Pass is hazardous, with narrow shoulders, sharp curves and grades, and inadequate sight distances. In common with the Haines Cutoff, it must be made comparable with the through route to Fairbanks before maximum tourist use is possible.

Tourist Accommodations. There are no provisions for entertainment of travelers along the Alaska Highway within the Territory. The only communities within miles of the route are Native villages at Tetlin and Tanacross, and even these are separated from it by the Tanana. There has been no chance for establishment of commercial roadhouses because of the withdrawal from entry of lands adjacent to the Highway, nor will any establishment of this nature be possible until the withdrawal has been relaxed. During the periods of construction and military operation, accommo-

dations for persons who were concerned with these functions were available at temporary roadside camps maintained by the Army and by civilian contractors.

RICHARDSON HIGHWAY. Earliest unit in the Alaskan system, this highway links the Gulf seaport of Valdez with Fairbanks, commercial and mining center of the great Interior. It is named for the first president of the Alaska Road Commission, General Wilds P. Richardson, in whose honor a tablet has been placed at Isabelle Pass, the highest point reached by the highway.

Captain Abercrombie's military explorations of 1899 resulted, two years later, in construction by the War Department of a pack trail from Valdez to Eagle, by way of Copper Center, Mentasta Pass, and what is now Tanacross. By 1904 a similar trail had been extended from this at Gulkana, by way of Isabelle Pass and the Big Delta and Tanana Rivers, to Fairbanks. By successive stages this direct route from Valdez to Fairbanks has been improved, and in 1927 it reached automobile standards. Principally because of heavy snow slides in the extreme south portion it has not been kept open to through winter use, although local traffic continues in some sections. Its total length is 371 miles.

From a scenic standpoint, two locations will be of particular tourist interest, the crossing of the Alaska Range between Big Delta and Gulkana, and the down-hill slide at the southern end from Thompson Pass (elevation 2,722) to Valdez, 25 miles away.

The drive from Fairbanks southeast to Big Delta is rather commonplace, save for occasional glimpses of the Tanana River and Salchaket and Birch Lakes, where vacation colonies serving Fairbanks have come into being. Proceeding south from Big Delta, the Alaska Range peaks of Hayes, Hess, and Deborah are seen across the Delta River, on the right. From Pillsbury Dome, near the highway, the panorama of Tanana Valley unfolds to the northward. Beyond Isabelle Pass (elevation 3,310), the highest point on the Richardson Highway, are Summit and Paxson Lakes, favorite fishing haunts. This is wild-game country, with bear, moose, and mountain sheep. From Gulkana to Copper Center impressive views of Mounts Sanford and Drum are obtained across the Copper River



Figure 29.—Thompson Pass.

valley. Midway from Copper Center to Valdez the scenery becomes more interesting and intimate. The road follows swift mountain streams and the monotonous regularity of relatively level spruce growth becomes varied. The long climb of 1,600 feet in 22 miles begins; tree growth dwindles and Worthington Glacier is openly visible, within a quarter-mile of the roadside.

Thompson Pass is rather bare of vegetation, the surfacing stones flattened by ancient glaciers. Here, atop the Chugach Range, begins the descent to Valdez. The road drops 2,000 feet and, following the Lowe River, offers Snowslide Gulch, where the bridge must be replaced annually, aptly-titled Bridal Veil and Horsetail Falls over 300 feet high, and Keystone Canyon. From its cliff-like sides the Lowe may be seen, far below. Relocation and tunnel construction, begun in 1944, will bring this short section of road almost to river level, improving the highway gradient and avoiding Snowslide Gulch, but depriving the sightseer of a measure of scenic splendor. The last ten miles of the way to the sea at Valdez are through lush tree growth, festooned with streamers of moss, characteristic enough of conditions along Alaska's southeasterly coast but strangely at variance with the country traversed on the trip from Fairbanks.

Accommodations for the recreational traveler along the Richardson are not adequate, and must be supplemented if visitors reach Alaska in expected numbers. There are no hotels or tourist camps as such are known in the States. Scattered along its 371 miles of length there have been as many as two dozen roadhouses, but the transition from pack horse to motor stage, coupled with diminution of

private travel during the war period, has forced most of them to abandon operation. Some of them may be revived by a resurgence of business, others are in advanced stages of decay and irrecoverable. Perhaps no more than five or six in all would fit into the required program of travel facilities.

The Alaska roadhouse is an institution which must be encountered familiarly to be appreciated. There the term does not connote in the least the type of use or misuse which has come to be associated with it in the States. Alaska roadhouses are functional necessities to travel through country populated sparsely or not at all. They are inns or taverns in the honest, Colonial sense, providing food and shelter for the traveler today as they did for his predecessor a generation ago, but now supplying oil and gasoline for the motor car instead of the hay and grain required by its equine forerunner. More, they often serve as trading posts for tributary populations, whether Native or white, sources of supply for pack trains, prospectors, and trappers, the first link in the chain of processes through which the raw pelt becomes milady's stole. They are post offices as well as general stores, often linking enough functions to become real communities in themselves.

The earlier roadhouses were apt to be sprawling, one-storied, log-buildings, with sod roofs perhaps strangely fitted together. Later came structures of two or even three stories, some of squared logs, others of frame construction, sometimes incongruous with their wilderness settings. In planning for the accommodation of recreational travelers, it would seem a fitting tribute to the part which these buildings have played in the development of



Figure 30.—Sourdough roadhouse.



Figure 31.—Chitina, Alaska—1944.

Alaska, to adopt the better principles which they have exemplified, with such modern adaptations as would add to the comfort of the visitor without sacrificing atmosphere and precedent.

EDGERTON CUTOFF. Named for Maj. Glen C. Edgerton, a former chief engineer of the Alaska Road Commission, this 39-mile stretch of road connects Chitina with the Richardson Highway at Willow Creek, about 92 miles north of Valdez. It was once an important link in transportation between the Interior and the coast, since Chitina was on the now defunct Copper River and Northwestern R. R., and a stagecoach was operated from Chitina to Fairbanks. Today, Chitina has rather the aspect of a ghost town.

Among recreational resources along the Edgerton are the northward views of the Wrangell Range, when the weather is clear. Mounts Blackburn, Wrangell, Sanford, and Drum dominate the panorama, ranging from 12,000 to 16,000 feet. A wayside picnic spot has been developed at Liberty Falls, 10 miles from Chitina. This also serves as a parking place for those who would photograph the falls or whip the fishing stream below. Nearing Chitina, the road drops down beside three beautiful lakes, climaxed by Lake Chenan, which abounds in grayling.

There will be two main purposes for recreational travel over the Edgerton Cutoff to reach Chitina: first, because of interest in the town and its aura of past history; and second, as a means of access to the big-game country to the eastward. Perhaps it is not too far-fetched to visualize, in the era of auto travel to Alaska, a revitalization of old Chitina

as an outfitting center for hunting and fishing expeditions into the hinterland.

Although Chitina is only 39 miles from the main artery of the Richardson Highway, accommodations for the traveler are somewhat in keeping with its "ghost" status. If it regains some of its lost air of busy traffic, provisions for lodging and feeding transients will no doubt be augmented and improved. For the present, a non-urban overnight stop in the vicinity of the Chitina Lakes appears advisable.

STEESE HIGHWAY. As president of the Alaska Road Commission from 1920 to 1927, Gen. James G. Steese rehabilitated the highway system of the Territory in the years following World War I. This included construction of the highway which now bears his name. Prolonging the Richardson Highway 162 miles northeasterly from Fairbanks to the Yukon River at Circle, it there reaches the most northerly point in the Alaskan road system. In addition, at Eagle Summit (elevation 3,880), it climbs to the highest point attained by any road in the Territory.

Although not originally built to standards of width, alignment, and foundation comparable with those in force on the Alaska Highway, the Steese has gradually been improved to a condition of easy travel. It passes through a scenically beautiful terrain and permits inspection, at close range, of some of Alaska's most important placer mining. Bones and tusks of prehistoric mammals and some artifacts of stone have been recovered from the section traversed by the Steese. Large herds of caribou sometimes cross it during their autumnal



Figure 32.—View from a summit on the Steese Highway.



Figure 33.—Elliott Highway crosses the Chatanika River.

migration. The hunter should note that regions of favorite crossing are protected, and that shooting of caribou in the vicinity is prohibited. Fishing is reputed to be excellent in the streams which are paralleled and intersected by the Steese.

About 130 miles from Fairbanks a spur road leads southeast 9 miles to Circle Springs, a summer and winter resort developed around mineralized springs which flow 400 gallons a minute at a temperature of about 139°. Besides its therapeutic values, the water of the springs has been utilized to heat the hotel, cabins, and other buildings which comprise the resort. Summer communication with Fairbanks is accomplished by road, but at other seasons reliance must be upon air transport.

At the north end of the Steese Highway summer-time connection is made with the river boats at Circle, a village of about 100 persons, mostly Natives. The derivation of its name has already been noted. Circle retains little of its earlier importance.

Factors tending to recreational use of the Steese are its scenic environment, desire of the tourist to achieve "farthest north by road," connection with the Yukon boat trips, and apparent incongruity of hot springs so near the Arctic Circle. Amount of use will probably not equal that of the Alaska, Richardson, or Glenn Highways.

As many as eight roadhouses, spaced approximately 20 miles apart, have been in operation at one time or another along the Steese Highway. Probably a third of this number will serve the seasonal use of such tourists as venture upon it.

ELLIOTT HIGHWAY. Branching from the Steese

about 11 miles from Fairbanks, the Elliott Highway leads northwest about 75 miles to Livengood, a placer mining district. It appears that little use of the Elliott will be made by recreational travelers.

THE ABERCROMBIE TRAIL. Although comparatively new as a highway, the Abercrombie Trail follows, for at least half its length, a portion of the route from tidewater to the Klondike which was first explored in 1899 by Capt. William R. Abercrombie. Leaving the Richardson Highway about 3 miles north of Gulkana, the present day road follows the valley of the Copper River 64 miles northeasterly to Slana, as did the Eagle trail, but there swings southeast about 40 miles to Nabesna, tapping the mineralized area north of the Wrangell Mountains.

Chief importance of the Abercrombie Trail in the picture of recreational travel lies in utilization of its western half as a portion of the new direct route from the upper Tanana Valley to Anchorage. Views of the peaks of the Wrangell Range are rather impressive when weather conditions are favorable. A glance at the map (fig. 22) will reveal the way in which the northwestward thrust of the mountains is more than half encircled in the journey from Chitina to Nabesna. The section of the Abercrombie between Slana and Nabesna has been little used or maintained during war years because of curtailment of mining at its terminus. Postwar resumption of such operations and suitability of the region about Nabesna for vacation pursuits will perhaps act to increase the importance of that part of the road.

Following the precedent of earlier highways, roadhouses have been established near crossings of the Gakona, Chistochina, Indian, and Slana Rivers. During the period of war activity some have lapsed into the status of road maintenance camps; others have been operated largely for the convenience of freight truckers handling government shipments of materiel, supplies, and equipment, for use on the Alaska Highway. Some of them may be adapted to tourist use after the war, but additional sites will require to be developed.

GLENN HIGHWAY. Constructed as a war necessity and contemporaneously with the Alaska Highway,

although by the Alaska Road Commission instead of the Army, the Glenn Highway is of equal importance in the Alaskan road system with its more widely heralded companion piece.

Before the war, Anchorage was connected by road with the agricultural colony in the Matanuska Valley, a 50-mile stretch of road running northward from the Westward metropolis to Palmer. The Glenn picks up at Palmer and, following east along the northerly valley sides of the Matanuska and Tazlina Rivers, joins the Richardson Highway at a point midway between Copper Center and Gulkana, 115 miles north of Valdez. The new intersection, near the settlement of Glennallen, is 256 miles distant from Fairbanks and 242 miles from Anchorage.

Interflow of road traffic is now possible between Anchorage, Valdez, Fairbanks, Circle, Chitina, and all intermediate locations on the highway network connecting them. The effect of this construction upon the economy of Alaska will be considerable. It may well be assumed that some items of steamer freight from the States, previously carried from Seward to Fairbanks by railroad, will henceforth be trucked to parts of the Interior from Anchorage. Movement of freight over the Richardson Highway out of Valdez has been restricted by the long, steep climb at the start, and by necessary closing during the winter months. Such disadvantages are not evidenced in the case of the Glenn.

The postwar tourist will probably enjoy his trip over the Glenn more than that over any comparable section of Alaska road. The monotony of scenery sometimes apparent elsewhere is not evident here. Fifty miles away from Anchorage he is in the heart of the Matanuska community, now in full, efficient, and remunerative operation. East of Palmer the terrain grows more rugged; the view to the north upstream along the Chickaloon River is intriguing to passing fancy; southward across the Matanuska unfold the Chugach Mountains; from them roll the glaciers, Matanuska, Nelchina, and Tazlina. Nearer Glennallen a quieter tempo is resumed; the road straightens, speeding to its rendezvous with the Richardson. Yet the relatively direct route is not wearying, for in the far distance, set as a target or range beacon beyond Glennallen, rear the snow-tipped masses of Mounts Drum and Sanford.

Because it has been so newly opened, roadside accommodations are not consistently available along the Glenn Highway between Palmer and Glennallen. Starts have already been made toward such an end at scattered locations, and more activity may be expected along these lines as the tourist traffic increases. The advisability is indicated of making careful and immediate studies, to ensure that, on the one hand, adequate provision is made for the traveler's convenience, and on the other hand, that scenic values do not suffer through injudicious location of these needed facilities.

FUTURE ACCESS ROADS. Any study of the present road system of Alaska must consider further connecting links and contributory "feeders" which appear, however indefinitely, as future possibilities. Even though specific prophesy as to location or date of inception is impossible, there exist certain well-recognized deficiencies, satisfaction of which will influence the use of highways now in existence.

Seward Highway. On the Kenai Peninsula, north from Resurrection Bay at Seward to the south shore of Turnagain Arm at Hope, and largely through the Chugach National Forest, runs the Seward Highway, built by the Bureau of Public Roads, now the Public Roads Administration. Ultimate road connection from Hope to Anchorage has been considered, thus linking Seward with the Territorial network. The steep shores north and south of Turnagain Arm, together with the need for bridging that heavily-tided estuary, would involve costs beyond normal. Seasonal operation of a ferry between Anchorage and Hope might well prove less expensive, if connection is warranted.



Figure 34.—Seward Highway (Public Roads Administration photo).

It seems unnecessary to give special attention to facilities for recreational or vacation travel upon this highway unless this linkage is effected. The country traversed is scenic and recreationally usable throughout the entire area now accessible by road on the peninsula, a fact already recognized by hunters and anglers, and by the Forest Service. It will continue to serve as a recreational resource for residents of Seward, for tourists who stop over at that port, and, because of railroad facilities, for citizens of Anchorage and vicinity.

Glacier Highway. North from Juneau, along the east shore of the Lynn Canal, runs a 30-mile road known as the Glacier Highway. Between its terminus and Haines lies the only impediment to continuous automobile travel from Juneau, capital city of the Territory, to Anchorage, burgeoning metropolis "to the westward," and to Fairbanks, central city of the Interior. Because Haines and Juneau are on opposite sides of the Lynn Canal, and because of steep slopes around its upper periphery, connection by road between the two cities appears unlikely at an early date. Northward extension of the Glacier Highway to a point near Berner's Bay would reduce the water interval materially and encourage ferry service over the intervening distance, even should the proposed ferry from Prince Rupert to Haines not become a reality.

Connection to Mount McKinley National Park. Mount McKinley National Park is recognized as an outstanding recreational resource of Alaska, but unfortunately for the traveler by motor car, it can be reached only by means of the Alaska R. R., a half-day trip from Fairbanks. In prewar years the railroad offered a service whereby passenger automobiles could be transported on flatcars, from Fairbanks to McKinley Park Station and return, at a reasonable charge. There are, within the area, more than 80 miles of automobile road, unconnected as yet with the Territorial road system.

Two possibilities have been offered for effecting such a connection. One contemplates extension of the existing park road northward from its westerly terminus, down the valley of the Kantishna River to the Tanana, there to intersect a possible road from Fairbanks to Nome. Because of small likelihood of early construction of the latter, the Kantishna route does not appear currently feasible.

Consideration has been given to an approach from the Richardson Highway, the proposed road following old sled trails westerly from Paxson's to Denali, on the Susitna River, and to Cantwell, situated on the Alaska R. R., just south of the park. The distance from Paxson's to Cantwell by this route is about 125 miles. Possible mineral resources along the way strengthen this proposal.

Extension of this approach cross-country in an easterly direction from Paxson's to the Slana River and down it to join the Alaska Highway at Mentasta Lake has been suggested. A comparatively direct, albeit scenic route from Tok Junction and eastern points to the park would thus be assured. So far as is known, mineral resources between Paxson's and Mentasta Lake are not of present importance.

From joint consideration of the desirability of highway approach to the park and the possibility of tapping mineral resources along the most feasible route, it appears that the road west from Paxson's should be undertaken whenever such action becomes possible, but that the link east to Mentasta Lake should be deferred to a much later position in the Alaska road program.

Feeder Roads. As time passes, feeder roads will come into being, to facilitate reclamation and wise use of the natural resources of the region rendered more accessible by highway. The Bureau of Mines has been active in investigating potential supplies of critical raw materials throughout the Territory. Possibly deposits of sorely needed minerals may be discovered in the general locality of the Highway, in such quantities and sufficiently

recoverable as to justify the construction of access roads. These would make possible the transportation of machinery and supplies to the mines, and of their products to processing plants or markets.

The Office of Indian Affairs welcomes the advent of the Highway as of material assistance to them in forwarding supplies to the Natives in the villages and reservations of the Territory. This procedure would be further facilitated by stub roads from the main highway to the reservations. Some improved means may be found necessary for crossing the river between the Highway and the villages of Tetlin and Tanana Crossing.

Indians of the reservations in the Southwest and in the Alleghanies have found it profitable to sell examples of native handicraft to the tourist and to pose as subjects for portraiture. The Indian of the Tanana is understood to have little interest in market-production of handicraft objects, preferring to depend on trapping and fishing. It may be that new-found familiarity with the tourist will result in acceptance and adaptation of customs followed by his more sophisticated brethren.

Moreover, there will be opportunity for him to guide and otherwise serve the parties of sportsmen for whom the main lure of Alaska will be its larger game-animals. It would not be difficult to imagine a series of sports headquarters scattered through the enclosing elevations of the Tanana, operated as private clubs or as commercial enterprises, and approached by road connections from the Highway.

The Tanana Valley is one of three regions in the Territory which are best adapted to agriculture. In its upper reaches east of Delta Junction, however, increasing elevation of the valley floor and its attendant effect upon temperatures and lengths of growing seasons may be accepted as indications that present techniques of farming will not prove uniformly successful. If these are improved, and without thought of forwarding another Matanuska project, the possibility suggests itself that some communities of predominantly agricultural character may arise in the Tanana Valley, either beside or removed from the Highway, as soil conditions and slope orientation may dictate. "Farm-to-market" roads of the States may have Alaskan counterparts.

If the apparent agricultural possibilities of the



Figure 35.—Natives by the roadside.



Figure 36.—Experimental farm at the University of Alaska.

Tanana Valley region are substantiated, experiment stations there may well be considered, especially since climatic conditions will not coincide with those at College, the site of the parent station. In point of fact, installation of simple facilities for agricultural research would perhaps be of great value, in that determination of the agricultural potentialities of the region would be available in advance of homesteading operations. From this availability the Government would benefit no less than the homestead aspirants.

Perhaps the timber resources of Interior Alaska would not justify commercial operation if forests of larger growth or more desirable species were close at hand. They will serve many local needs

in lieu of foreign timber imported at considerable costs. Saw mills are indicated, and even small plants for fabricating wood products. Sympathetic consideration for scenic values suggests that such mills or plants be located in the hinterlands, and not directly upon the Highway. Access roads again enter the picture.

Procurement of fuel wood is a problem in Alaska, as paradoxical as the statement may appear at first glance. In common with all commodities which need local labor for production or preparation for the market, its cost to the consumer is high. Because of the length and severity of the winter season in Interior Alaska, fuel quantities required for home fires appear fantastic to those who are familiar only with more temperate climes. The homesteader is able to combine necessary clearing operations with laying-by his winter fuel; such a course is not open to residents of populated centers.

The suggestion has been made that suitable tracts be set aside from the public domain, in the near vicinity of communities which are already existent or may be expected to develop, and that community dwellers be permitted to harvest their winter fuel from these tracts, in conformity with requisite and reasonable principles of forestry. As in the case of commercial timbering operations, these public woodlots should be so located as not to detract from the merit of roadside views.



Figure 37.—Richardson Highway, through the Alaska Range.

PROVISIONS FOR RECREATIONAL USE

CHARACTER OF USE ANTICIPATED. The concern of this report is primarily with the use of the highways by those who will drive or be driven over them for purely recreational purposes. The designation of "tourist" has long been applied to such travelers for pleasure, and probably there is no better term, although a slight tinge of disrespect has gradually attached itself to the name. As used here it does not bar those who have made advance selection of major recreational objectives within the Territory. Careful preparation of tourist itineraries tends toward more nearly complete realization of maximum trip pleasures. They should not be accorded such slavish adherence as to prevent the inclusion of additional interesting objectives which appear.

Beyond this pleasure use, there will be many northbound travelers whose plans do not include a return journey, individual persons and families bent on establishing new homes under circumstances which they have come to believe will be more fortunate than those which they are abandoning.

Present use of the Alaska Highway and of other roads in the Territory keys directly with military activities. This war will end and civilian travel resume; military traffic will dwindle but hardly disappear. Military convoys, which are normally self-subsistent, make little use of accommodations for public convenience, but travel by officers and soldiers on detached service will differ little in character from that by citizens in civil life.

Alaskans are extensive travelers. Heretofore the prevalent unit has been the passenger-mile by air. With current improvements in the road system, there is reason to suppose that the corresponding road-mile index will keep pace.

Some business travel will be purely local, such as road patrol trips returning to base each night. Other trips will be more of a continuing nature; it is not hard to vision salesmen covering Valdez, Anchorage, Fairbanks, and intermediate commu-

nities. If ferry service southward from Haines materializes who is to say that persons from the Interior and "the Westward", having business at the capital city during the summer season, will not drive with their families to Haines and there take boat to Juneau? Automobiles would be left at Haines to await their return or freighted on the ferry, as their personal requirements dictated. It is certain that those habituated to flight from Fairbanks to Juneau as a necessity will wish to drive over the road at least once, if only for the novelty of the experience.

Road travel by Alaskans for pleasure may increase materially. In the various open seasons for game, it has been customary for parties of sportsmen from the cities to drive out along the highways, leave their cars at roadhouses conveniently located with respect to favored habitats of beast or fowl or fish, and from these centers carry on activities of the chase. In view of the additional territory opened up by the Alaska and Glenn Highways, it is logical that consideration should be given to this custom in allocating space along the roads for the accommodation of the public.

The citizens of Fairbanks have built colonies of summer cottages around Salchaket and Birch



Figure 38.—Rapids hunting lodge.



Figure 39.—Lake Salchaket.

Lakes, within easy driving range by Richardson Highway. Similar developments to serve Anchorage are to be expected. Highway traffic between year-round and seasonal homes is naturally heavier over the summer week-ends, families remaining continuously at camp during the warmer months, while the wage-earner is able to enjoy its pleasures only between Saturday noon and Monday morning.

Vacation use of favored recreational sites will probably increase in Alaska, whether participated in by residents or by visitors to the Territory. Circle Springs has been mentioned. Developments are indicated in new locations, places where the Alaskan may spend a week in relaxing surroundings away from his usual milieu, and where the tourist may break his trip for more than a single night, perhaps spending several days in recovery from too protracted a travel-jag.

One spot along the highways is especially adapted for such purposes. The environmental qualities of Mentasta Lake have been mentioned. About 285 miles from Anchorage and 260 miles from Fairbanks, its major characteristics are more restful than spectacular, an ideal place in which to idle away a summer day. Lands near the lake lie well for development for vacation facilities, wooded bluffs overlooking the water. Spruce predominates along the southern rim, and second-growth aspen covers the land between the highway and the western shore. Fishing is reputed to be excellent at Mentasta.

FACTORS INFLUENCING VOLUME OF USE. Estimation of the volume of future recreational use of Alaska's highways can not be mathematically

exact. It is only possible to consider the manner in which some certain factors will affect the volume, and to draw general inferences from study of similar travel, in the States, to the areas which are comprised in our great federal system of parks.

Among influencing factors none is more powerful than publicity, according to its extent and nature. One is not inspired to visit scenes which have not been brought to his favorable attention. Previous chapters have touched upon publicity accorded to Alaska and things Alaskan in the recent past. Some of it has doubtless been unwise, even misleading and tending toward later disillusion, but the fact remains that Alaska has been more widely publicized during the last three years than at any time since the gold-rush furore subsided. Stimulation of recreational travel is unquestioned, even if its degree is debatable.

The distance which must be traveled to reach a given objective enters clearly into a quantitative determination of probable travel, because of its interdependence with costs involved, whether in money or in time. Full response to the publicity-engendered urge to visit Alaska will be retarded by realization of the distances which separate it from our population masses. As noted, the road distance to Fairbanks from the United States center of population is more than 4,200 miles. The round trip from Terre Haute, to include visits to Fairbanks, Anchorage, and Valdez alone, without glimpses of other Alaskan cities, would add 9,200 miles to the odometer of the family car.

An alternate trip within the States, with the same total mileage and more quickly accomplished, would include the cities of St. Louis, Kansas City, Denver, Salt Lake City, Seattle, San Francisco, Los Angeles, Fort Worth and Dallas, New Orleans, Birmingham, Knoxville, Washington, Philadelphia, New York, and Pittsburgh, with stops for relaxation in at least eight of the national parks along the way; Rocky Mountain, Yellowstone, Glacier, Mount Rainier, Yosemite, Grand Canyon, Carlsbad Caverns, and Great Smoky Mountains. Length of the trip is much easier grasped when exemplified in these more familiar terms.

The trip to Alaska will not be made as easily or as rapidly as one of similar mileage in the States. The condition of Canadian roads from the United States to Dawson Creek has been noted. Even



Figure 40.—Alaska Highway, ready for gravel surfacing.

after reaching the Alaska Highway, travel will be over water-bound gravel roads, hard-surfaced or treated for dust reduction only in the cities. Tendency of gravel roads to “washboard” is recognized. Dust arising from untreated surfaces becomes not only an inconvenience and discomfort to the traveler, but an actual hazard. Knowledge of these conditions will deter many potential tourists.

The highway trip is not for those whose vacation period is limited to the stereotyped “two weeks in August”. To accomplish the suggested 9,200-mile journey, at normal tourist speeds and without any allowance for side excursions so necessary to full understanding of the country, may take from a month to five weeks, depending on weather conditions and inclinations of the driver. Those who travel for business purposes will perhaps drive parts of the way at a much higher speed, but the tourist, seeing Alaska for the first, and perhaps the only time, should not be forced to a haste of passage which will not admit full enjoyment of the scene.

There are no accommodations for entertainment of the tourist along the Alaska Highway; none will be established by private enterprise until adjacent lands are released from the present withdrawal from entry. If this fact is made known to potential visitors, as a duty to the public, many will defer the proposed trip until such time as facilities are available, a desirable and commendable end. Until overnight stopping places, restaurants, and fueling stations are provided for the Alaska and the Glenn, only those should attempt the tour who are versed in life away from material comforts, familiars of the sleeping-bag, and who know

how to stock and use grub-boxes and reserve fuel tanks sufficient to outlast the journey from Whitehorse to Dawson Creek or to Fairbanks.

The dollars-and-cents cost of the Alaskan tour will be somewhat more than one of similar extent within the States. Prices of motor fuels and oils in the northland are now considerably higher than those in the United States. Postwar commercial operation of the war-built petroleum processing and distributing system will probably reduce but not eliminate this added cost. Prices for food and lodging will be higher than those in the States, partly because of freight charges on commodities imported from there, but more because Alaska clings to a depreciated standard of value for the dollar, a survival from the gold-rush period when it was difficult to obtain goods. In the Territory, wages and living costs alike are high. It may well be that the leavening influence of the tourist inflow will be reflected in some reduction of costs for food and lodging, but probably for some time to come the prospective tourist to Alaska should assume that trip costs will be one-fourth higher per mile and per day than while in the States. This fact will diminish expectancy of travel.

QUANTITATIVE ESTIMATE OF USE. Consideration of probable annual tourist travel over the Highway to Alaska must be prefaced by a warning that pretence to accuracy would be quackery. At best, it is only possible to draw parallels from travel with similar ends but to shorter distances.

Tourists to Alaska may be considered as motivated by urges similar to those which inspire visits to National Parks. For many of these, year-by-year



Figure 41.—A bend in the Tanana River.

information is available concerning the number of automobile visitors from each state. The attempt to evaluate probable Alaskan travel has included an analysis of travel data from a representative group of parks. 1940 was selected as a base, because of its coincidence with the latest census, and because it is the latest year in which the effects of war participation are not reflected.

Many factors contribute to the ability of a park to attract visitors to itself. Chief among these are (1) its intrinsic values, scenic, scientific, historic, or recreational, (2) the extent to which it has been brought to favorable public attention, by advertising and by operation methods pleasing to the visitor, and (3) its location with respect to population masses and to other similar areas.

The road trip to Alaska was earlier likened to one of similar length within the States, a journey which would include visits to eight National Parks. Assume for the nonce that the family of a postwar Indiana professor, seeking summer-long respite from confining routine, might find it hard to choose between the two trips. For that family, the allure of Alaska would be equal to the combined attraction of the eight parks.

Studies have been made of the recreational travel from various centers of population to several parks which are of approximately equal allure but which are located at differing distances from the studied centers. It develops that there is a very definite relation between the proportion of population from any locality which will visit a given park and the distance of that park from the locality.

In attempting an application of this relationship to recreational travel by highway to Alaska, it is at once apparent that the significant factor will be the cost of travel rather than actual mileage covered. Simply expressed, as many persons will make the Alaska journey as would essay a trip in the States with similar objectives but 25 percent longer in miles.

By taking these and other pertinent factors into consideration, it may be deduced that as many as 40,000 tourists will drive over the Alaska Highway each year, enroute to the Territory. This figure is presented as an average, which may be exceeded during the first years of unrestricted travel and followed by a sharp drop and a long, steady growth. It presupposes improvement and maintenance of

the Alaska Highway and its approaches, provision of suitable accommodations conveniently spaced along the way, and resumption of prewar touring habits. If the first two conditions are not effected, use of the road as a means of tourist access to Alaska may be disregarded, and its cost written off as an investment in national security.

To this figure of 40,000 expected annual tourists by automobile must be added an estimate of those who will travel to Alaska by bus and those who will reach the Territory by other means but will use bus travel to become closely acquainted with the land. Taking into account the number of tourists who went to Alaska by ship in prewar years and the probable expansion of air transportation after the war, an increment of 20 percent for this purpose seems less than optimistic. The total number of estimated annual visitors to the highways of Alaska has now reached 48,000.

From several sample itineraries, all carefully prepared, and considering what may be seen from the Alaskan roads and in towns reached by them, the average tourist stay in the Territory is estimated at not less than 8 days. Nor does this seem overly long when compared with the 3,900-mile trip which will be required before Alaska is even entered. It will take nearly a month for the average tourist to reach the Yukon-Alaska border and return home from it, unless road conditions are improved materially.

Assuming the vacation season to be 13 weeks, from June 10 to September 10, and deducting the time which will be needed for the round trip between the States and the Border, the tourist season in Alaska will be only about 64 days. The ultimate inference is that there may be as many as 6,000 tourists in Alaska on an average summer day after the war, if motor touring is facilitated through improvement of highways and provision of hostels. This is the basis upon which will be predicated recommendations for the distribution and capacity of facilities for roadside accommodation.

IMPROVEMENTS TO THE HIGHWAYS. The Alaska Highway has been constructed as a war measure, and without particular consideration of the role which it may play in the recreational picture of the future. Repeated statements from military sources have made it clear that the interests of the War

Department have been only in a road capable of carrying, over a period of 5 years, a northbound and a southbound stream of traffic, each composed of units of size, weight, and mobility needed for military purposes.

The reasons for this viewpoint are recognized. Total efforts of the nation have been absorbed with successful prosecution of the war. Activities retardant to this aim have no place in the program of the nation until our national safety has been assured. Nevertheless, it is wise to consider and propose for future attainment such modifications of the residue of war necessities as will render them of greater peacetime use. Certain of these may come about gradually and naturally, during further military operation, to facilitate military traffic beyond bare possible accomplishment. Others, which serve no military necessity but are indispensable if the Highway is to carry tourist travel, are fit subjects for a postwar program.

Line and Grade. The Mentasta Road section of the Alaska Highway and the Haines Military Road are not currently up to the standards of the Tanana Valley portion of the through route, so far as alignment and grades are concerned. Possibly both sections will be somewhat improved under military operation; whether to equivalence with the Tanana Valley road is doubtful. It is important to their future value that full equality be accorded them, to the Haines Cutoff on account of its vital position in the integrated Territorial network, to Mentasta Road for similar reasons and because it provides access to desirable recreational lands along the highway. Sharp and dangerous curves should be eliminated, sight distances lengthened, and sufficient surface width provided to make danger of sideswiping less prevalent than at present.

Surfacing. The Alaska and all other highways in the Territory will be more attractive to tourists if treated with some measure of surfacing beyond the mere gravel wearing coat. Climatic conditions and amount of use per mile involved place concrete paving beyond the limits of economic consideration. A part of the cost of bituminous application would be recoverable in reduced maintenance costs. The effects of the extreme winter temperatures of the Tanana Valley upon bituminous surfaces must be considered, but data of value in this connection may be garnered from past experiences

in paving airport runways in the vicinity.

If paving of a relatively permanent nature is not deemed economic or advisable, recourse to chemical treatment to minimize the dust will be necessary. This will effect only temporary improvement of the disagreeable condition, will do little to hinder "washboard" tendencies, and will involve periodic seasonal applications. Bituminous surfacing should receive sympathetic consideration.

Cleanup. Clearing operations in advance of the Highway have been simple. Because of underlying frozen ground, root systems form as shallow disks close to the surface, without tap-root anchors. Bulldozers have pushed obstacles, trees, brush, and topsoil alike, beyond the limits of operation. The width of clearing has been increased as paralleling oil and telephone lines have been added.

Effective though this procedure may have been, windrows of tangled tree branches and trunks will constitute a distinct fire hazard when the road is opened to normal traffic, and until the accumulated debris has rotted into soil or been disposed of by artificial means. Incidence of fires has not been heavy during construction, because of the ability of the Alaska Fire Control to impress upon soldiers and civilian workers alike, through sympathetic cooperation of commanding officers and contractors, the necessity for constant precaution. Individual presentation of the seriousness of the situation to thousands of tourist groups will be impossible for the limited staff maintained by or expected to be available to the preventive agency. Elimination of inflammable material will protect Alaska's timber resources and maintain its scenic attractiveness.



Figure 42.—The aftermath of construction.

Slopes and Ditches. The driving need to complete a passable road from Dawson Creek to Fairbanks has left small chance for refinements beyond the limits of the roadbed, such as are considered advisable in parkway projects and in the more utilitarian major highways of the States. Surfacing material has been dug from borrow-pits, easily accessible from the road but sometimes marring its scenic values. Side-slopes have often been left steeper than the angle which the soil can eventually maintain. Side-ditches have been seen only as channels necessary to remove water which might otherwise damage the road. In the rolling section near the Border, soil conditions are conducive to erosion of over-steep slopes and unwidened ditches. The results of heavy early-summer rains in 1944 attest the necessity for revisions.

For reduction in maintenance costs as well as for the impression upon future travelers, it would be well to flatten side-slopes and roll them into the intersected contours, to convert angular-sectioned ditches into broad-arc gutters, thus dissipating erosional force, and to take needed measures to stabilize the soil within the disturbed areas. Roadside planting as practiced in the States does not appear so necessary in Alaska. Road scars heal quickly there, the omnipresent fireweed takes over with surprising rapidity, and the summer traveler finds difficulty in estimating the age of the road over which his car passes.

Selective Cutting. The hedged-in passage of the spruce-enclosed tangents in the Tanana Valley has been mentioned. Yet, beyond the enclosing walls of living green, the Alaska Range rises to the south and the silvery, sinuous Tanana is deployed to the north. Judicious cutting along the right-of-way, supervised by men trained in forestry practice and in recognition of scenic possibilities, would open up vistas of enchantment. The tedium of unvarying journey would be relieved without detracting from full appreciation of the natural beauties of the terrain. The out-of-pocket cost of the improvement would be diminished by the fuel value of the wood removed.

Mileage Marking. Mile-posting of roads is a part of the Alaskan picture, a definite service to the public. Roadhouses, stream crossings, grades, and interest-points of all sorts are remembered as at Mile so-and-so from such-and-such on this-or-

that highway. It will become even more valuable to the tenderfoot from the States who pilots his own car. At home he has usually recognized highways by state or federal number, rarely by designation. In the Territory he will find the highways bearing names commemorative of those who pioneered or supervised their construction. In the States, informational signs at road intersections have supplemented his study of road maps with distances and directions to prominent towns; in Alaska road intersections are less frequent and he relies upon mile-posts as much as odometer readings to check his progress.

The system of mile-posting has developed with the highways. The Richardson, first unit to be built, was numbered consecutively from Valdez inland to Fairbanks, but many relocations have invalidated the accuracy. Mile-posts have recently been set at approximate 5-mile intervals from Fairbanks toward and as far as Delta Junction. The Steese starts from Fairbanks and progresses to Circle. The Abercrombie Trail counts mileage toward Nabesna from its point of departure from the Richardson. Edgerton Cutoff likewise begins at its Willow Creek divergence.

On the Alaska Highway, temporary mile-posts were set by the Army as the pioneer road progressed from various attack points. In Alaska, zero was at Slana (Mile 64 on the Abercrombie Trail); Mile 72 fell at Tok Junction; and at the Canadian boundary, on the 141st meridian, Alaska mileage 174 met a Yukon mileage 322 west from Whitehorse, another main point of attack.

As the Public Roads Administration extended its surveys along the location then proposed as final, still another system of mileage-marking boards was established. In this case, numbering was generally toward the northwest, continuous over the entire length of road, although attack from various points necessitated assumptions and later equalizations. For instance, the intersection of the Alaska and the Richardson Highways, not far from Big Delta, was assumed as Mile 2,000 and distances stepped backward to the Robertson River crossing, at which point an equalization of approximately 63 miles was effected with surveys from the southeast.

To further confuse acceptance of existing mile-posts along the route of the Alaska Highway, the road as it is now constructed follows in part the

original military alignment, sometimes the surveys of the Public Roads Administration, and elsewhere neither one. Since discontinuance of construction, the through route has been mile-posted from Dawson Creek northward and westward to Delta Junction. The accuracy of spacing in this setting is questionable. The Alaska Highway should be marked once more before tourist use begins.

Mileages on the newly-constructed Glenn Highway are cited from Palmer, the starting point of latest work, although Anchorage, earlier connected with Palmer, is the significant terminal of the route. In addition, the easterly 43 miles of the Glenn is marked with boards showing the distance from its intersection with the Richardson Highway, rather than from Palmer.

Distances used throughout this report have been obtained by referring each point in question to the nearest available mile-post, preferably to one in the latest series of markings if several sets have been in effect. They are to be regarded only as approximations, and as subject to revision if or when mile-posting is established upon the basis of accurate alignment surveys.

It is recognized that definition of road distance in Alaska is a privilege and responsibility of the highway administering agency. However, it seems no more than fitting to call attention to benefits which would accrue to the traveling public, now that Alaska has an interconnected system of roads, if a concerted and coordinated system of mileage marking were adopted for the Territory, even to the extent of abandoning all the designations now in use. Long years of usage have strengthened the position of present markings, as on the Richardson, but simplification for future use would seem to outweigh the inconvenience of having to become acquainted with new procedure.

In many of the states it has been an accepted practice to compute mileages throughout the state from zero mile-stones located in the capital city. Because of Juneau's isolation, so far as highway connection is concerned, from the great body of the Territory, this system would not be applicable or advantageous to Alaska.

In view of the significance which tourist travel by automobile is expected to attain, it would seem logical that all connected roads in Alaska west of the 141st meridian should be marked with mileages

measured from the point of ordinary road entry, the crossing of that meridian. Thus Tok Junction would be at Mile 94, Fairbanks 302, Circle 464, Mentasta Lake 145, Valdez 358, and Anchorage 435. The only road which is not admirably adapted to this course is that section of the Richardson Highway between Delta Junction and Gulkana.

Telephone. Communication for the entire length of the Alaska Highway and from Delta Junction to Fairbanks is now possible by means of an up-to-date telephone installation, carried out as a part of the Alaska Highway program. Other of the Alaskan roads are paralleled by less satisfactory lines, or not at all. The advisability of extending this coverage to all of the Alaskan roads is evident. Telephone connection with terminal cities and with each other will be invaluable to the managers of the individual places of refreshment for travelers. Bus operation will be made easier. Patrolmen of the road-administering agency will need means of immediate communication in emergencies; sometimes the very difference between life and death will depend upon its availability. Short-wave two-way radio has been used to some extent in the States as an aid to highway patrol and may come into general use in Alaska, although terrain and deposits of minerals will perhaps render it less effective. It would be a simple matter to train and equip all patrolmen to mount the nearest pole and establish immediate communication with hospitals or doctors if the exigencies of the situation demanded.

FACILITIES NEEDED IN CONJUNCTION WITH HIGHWAYS. A highway provides in itself only the path by which vehicular travel is accomplished from one place to another. Various adjuncts, keyed closely to the road but not a part of it, are necessary if travel over its length is to be easy, or even possible. Shelter and food must be provided for the traveler, as well as fuel and service for his vehicle. New trunk highways in thickly settled portions of the States have largely been improvements or relatively minor relocations of existing roads; and so roadside facilities have already been extant along the route. Even in less populous sections, the new roads have touched various communities, and private development of gasoline stations, repair garages, hot-dog stands, and other businesses of

that ilk has usually been sufficient to fill requirements in the intervening vacancies. Only recently, and in connection with parkways, toll roads, and other traffic ways of the limited-access type, has the advisability of controlled provision of services of this nature been recognized.

The Alaska Highway touches no communities of any significance, save Whitehorse, in its length from Dawson Creek north to Fairbanks. Towns served by other Alaskan roads are mainly terminal to them. Because of the expected preponderance of travel of a recreational nature, and because the way is not presently cluttered with undesirable accessories, it is the part of wisdom to plan for orderly and controlled development of these facilities rather than to leave their initiation to individual and perhaps unwise private adventure. This is not to imply appropriation of the right to construct roadside facilities to governmental agencies or authorized private interests; it does provide means for private developments to conform to standards precluding their intrusion upon the attractiveness of the scene and assuring provision of adequate and suitable services to the traveler.

Communities. It has long been axiomatic in the States that communities develop at and about the intersections of major highways in rural settings. The gas station is first in the field, branching out with groceries and supplies, and then a modest row of tourist cabins, as the enterprise becomes established. To protect the investment, the family of the owner is domiciled in a new building near at hand. A mechanically inclined youngster, hired as helper, soon leaves to open a repair garage nearby. Secure in his new status, he marries and founds a home across the road. The bride's parents, retired from active pursuits and missing the more her youth and charm, come to make their abode near her. Thus gradually arises an independent community.

There is reason to suspect that the pattern will be followed in Alaska, now that its roads begin to form a connected web. Potential communities will probably come to be modeled along village or town lines, offering to travelers and to residents of the countryside those commercial advantages which are necessary to the conduct of their affairs. General stores, gas stations, automobile repair garages, restaurants, lodging houses, and perhaps



Figure 43.—An operational center beside the Alaska Highway.

small hotels are indicated.

In addition to these "commercial" communities, others will be developed which are better classed as "operational" centers. Nuclei have already been established in the form of automotive repair shops, telephone repeater stations, and petroleum boosters necessary to Army operation of vehicular and air transport. Some of these will doubtless carry over into the postwar period; others may be required as headquarters for road maintenance crews.

Maintenance of the Alaska Highway immediately subsequent to its construction was handled by the Corps of Engineers, through contracts with firms which were active in construction under supervision of the Public Roads Administration, and later by direct labor. Summer maintenance in 1944 was done for the Army by the Alaska Road Commission, upon a reimbursable basis. Under normal operations, this task must be performed by some agency regularly occupied with Territorial affairs, in the same way that the Alaska Road Commission now maintains the Richardson and other highways.

In the case of these other roads the Commission has continued the use of construction camps for housing maintenance gangs and storing equipment and supplies. In some cases, intermediate road-houses, abandoned because of the increased speed of travel, have been utilized. Along the Alaska Highway, as a temporary expedient, some of the leftover camps have been used as work centers for maintenance. It would seem wise, in the interest of personnel retention, to plan better housing for employees.

Operational facilities will be needed near the point where the Highway crosses the meridian of longitude 141° west of Greenwich. Here, despite amicable relationships which have always obtained between two of the great neighboring peoples of the North American continent, certain formalities of customs and immigration services are requisite. Here could well be stationed, also, representatives of the various agencies on both sides of the border which are concerned with forest fire prevention and control, wildlife management and protection, and similar matters. From them the tourist should be able to obtain courteous explanation of variations of pertinent regulations and general information which would add immeasurably to the comfort and success of his trip.

The tasks of the Alaska Fire Control Service and of the Alaska Game Commission will be increased greatly when the Highway is thrown open to public travel, particularly in the fields of protective patrol and of public relations and information. The personnel of both agencies will require to be augmented, and it is quite possible that additional district headquarters will be needed. Perhaps they will be established in relation to expected growth of communities; most certainly proximity to landing fields and radio facilities will be a factor in the choice of locations. In any event, rangers must be provided with living quarters and with office space in some degree.

It may also be necessary for the Office of Indian Affairs to station additional representatives in the territory opened by the Highway, perhaps not because of increased Native population but because of facilitated association of different races.



Figure 44.—Summit Lake, potential vacation area.

Vacation Facilities. Possible developments to serve future vacation needs in Alaska fall into two classes, those which afford general relaxation and recreation, and those which point toward some one particular form of recreation, such as hunting or fishing. This classification is upon the basis of major purpose; to a certain extent these purposes may overlap or both be included in a single area, which may also be a casual, overnight tourist stop.

Developments in the first class could well be almost communities, self contained units in which necessary utilities would be included only as they effect comfort and enjoyment for the visitor, and so arranged as not to introduce a discordant note into the natural surroundings which will contribute so much to his spiritual rehabilitation.

Comfortable lodges or rustic inns are necessary, placed to take full advantage of lake or mountain views, adequate in size and appointments, but in keeping with the surroundings. Detached cottages or cabins offer more privacy to the less gregarious visitor, yet permit release from household tasks through the procedure of taking some or all meals at the lodge. Limited provision will be needed for the devotees of nature who will travel with and pitch their own canvas.

Recreational activities at these centers will not be especially diverse, but will center about the enjoyment of lakes or encircling heights. Boats on the lakes, hiking trails across valley floors and into the hills, perhaps even a stable of horses for ranging afield; these are major requisites for the program which will be pursued by most. Competitive summer sports are not lacking in Alaska, tennis is popular in Fairbanks and there are golf courses in the Territory, but one whose vacation happiness depended on taking part in activities so unrelated to his environment would be insensitive indeed to the natural advantages inherent to the site.

Utilitarian accessories will be required, but can be subservient to primary purpose and unobtrusive in the general picture. Provision must be made for servicing and repair of automobiles. Sale of foodstuffs and staples is indicated; the practice may be extended to include service to Native and other residents within a reasonable radius. Admitting the value of this function to the countryside plans for its inclusion should take into account subordination to the main purpose of the development.

Vacation areas of the second type will not attain a degree of development as pretentious as that required by the first. They will be regarded by most users only as conveniences incident to pursuit of favored pastime with rod or gun. The fisherman or hunter asks only a place to park his car, to bed down, and to obtain those meals which he does not choose to prepare by his own camp fire. More than these elemental facilities will be provided, mainly because the sites will also serve to some extent as stopping places for the tourist whose concern in Alaskan travel is not alone to reach the spots where grayling course the streams and moose stand knee-deep in the marshy pools.

Development of these secondary spots will perhaps be more closely akin to that which characterized the old-time Alaska roadhouse than any other which will arise along the roads. The "general-store" theme is here admissible to a greater degree than at areas of the first type, both because of the need filled and because the proprietor of one of them, unblessed with the volume of business enjoyed by more elaborate establishments, will require to augment his cash receipts.

Roadside Overnight Stops. The greatest obstacle to tourist travel to Alaska as soon as artificial restrictions imposed by war are relaxed, greater even than highway conditions between Edmonton and Dawson Creek, is the complete absence of facilities for the accommodation of travelers along the way. As has been implied, this deficiency probably will not be remedied until after the war, as resources of the nation are currently dedicated, and with good reason, to prosecution of the tasks essential to winning an early and advantageous peace. Plans must be laid, however, so that facilities can be made available, with as little inconvenience as possible, to the tourist influx which will stream upon the wilderness trail, full force and eager, without awaiting replacement of age-deteriorated tires or of automobiles rendered less dependable through prolonged inaction.

In planning stopover units for rural or sylvan settings, too close an association with distracting elements should be avoided, and an atmosphere of quiet serenity encouraged. Advantages of a wayside lodge, so placed that its porches afford sunset views across a calm, unruffled lake, are easily recognized.



Figure 45.—Midway Lake, setting for a roadside lodge.

Bodies of water are always recognized as assets to recreation, whether as the scene of active sport or for quiet contemplation. They are plentiful in the Tanana Valley. Lakes and ponds so dominate the aspect in the vicinity of Tetling and Northway that much of the charm ordinarily held is lost. To come upon a sparkling lake after miles of dusty, spruce-channeled road is a surprise and joy; to drive mile after mile in constant sight of thousands of such lakes renders them commonplace. Many of the ponds in this region are unfortunately so shallow as to freeze solidly during the long winter, and so are almost devoid of fish.

The quality of sport fishing in Alaskan waters has received such favorable publicity that many tourists may be expected to carry tackle readily available for use. The head of the family will be more apt than not to desire to try his luck after the evening meal. Because of this, the lodge or camp site should be selected, if possible, with relation to a lake which bears fish of respectable proportions within its waters as well as enjoyable views over and beyond them.

Along the part of the Alaska Highway which lies west of the 141st meridian there are no examples of the superlative scenery, intimate or distant, which occasionally greets the eye in the Territory. Thus there is no particular spot which asserts itself as "a natural" for purposes of the overnight stop. It is therefore possible to select stopping places on the basis of convenient travel distance, making sure that they are pleasantly, if not spectacularly situated.

Types of accommodations proposed should reflect the economic status and normal habits of life of the expected users. Because of the length of the

trip and its consequent cost, it may be assumed that any group of tourists to Alaska will include more persons from the upper levels of income than a similar group which essays much less extensive travel in the States. Most of those in the group will expect to find and to pay for accommodations of somewhat better nature than would suffice for an average tourist in the States. For the majority of Alaskan visitors it will be well to provide lodges of a type similar to that which has been indicated for vacation use of the first class, although of somewhat less capacity. Comfort and harmony with surroundings should be stressed in the design.

Lodge facilities should sometimes be supplemented by simple, detached cabins, suitable for occupancy by those who will wish to spend less for shelter than persons who occupy hotel rooms in the lodge. Sites should be provided for those who like and who travel so equipped, to pitch their own camps. As a matter of control, indiscriminate activities of this nature along the way should not be permitted. Provision for camping should be made in designated grounds, located as carefully as inns or lodges with respect to recreational opportunities and scenic surroundings, supplied with potable water, and equipped with community sanitary facilities. For ease of administration and operation, lodges and camp grounds may well be located close to, but not within sight of each other.

Allied Facilities. If travel over the highways of Alaska reaches a volume greater than foreseen, it may appear advisable to encourage installation of roadside restaurants, serving noonday lunches and evening meals to travelers who wish to drive on through the long summer hours of daylight before pausing for the night. Whether this procedure will be required depends somewhat upon the disposition of hostels. If they are to be of considerable capacity and widely spaced, intermediate roadside restaurants will be a necessity. If the overnight stops are to be of less capacity and consequently closer together, no further provision of meal stops is involved. It is suggested that first attention be given to inauguration of combination facilities for meals and lodging, and that action on special restaurants be deferred until a specific need has been demonstrated.

Gasoline Stops. The situation as to installation of stations for the special purpose of dispensing

motor fuels and oils is similar. Both primary and secondary overnight stops will necessarily include minor service stations. Attention to the gasoline supply each time that pause is made for meals or for lodging will certainly preclude the possibility of running out of fuel, unless the traveler speeds beyond reasonable limits.

View Overlooks. At points of particular scenic, scientific, historical, or other interest, a chance should be provided for vehicles to pull out of the traffic lanes and stop by the roadside, permitting to occupants of the cars an unhurried and carefree opportunity to enjoy sights of nature or reminders of past human activities. This chance would be afforded by simple lateral extensions of the road surface, safeguarded by railings or ramparts when necessary, and so arranged that free vision along the road in both directions is made possible for a driver leaving or entering the highway. A typical facility of this kind is included among those which are suggested in figure 61.

Impressive views will be obtained from the larger bridges, because of elevation of the bridge floor above the general level and because river valleys at right angles with the highway admit of greater perspective. Danger attendant upon the practice of stopping within the limits of a bridge, to gaze or to photograph, is apparent. Consideration should be given to the installation of pull-off spaces as closely related as may be to those bridges from which the best outlooks are afforded.

Signs and Markers. No incidental appurtenance contributes more to appreciation by the tourist than the sign along the highway. The value of the mile-posting service rendered by the Alaska Road Commission has been recognized previously. Signs along the Richardson are admirable in that each one indicates the distance to one or more nearby points as well as the cumulative miles from the termini. Initiation of a concerted program of mile-posting has already been discussed.

There will be particular need at road junctions and intersections for directional signs listing the points reached by each branch and their distances. It would be unfortunate if these necessary adjuncts to travel were allowed to develop, without logic or good planning, as the nondescript assemblages of information which are too often evident at cross-roads in the States. Thought should be given to

the formulation of standards for unobtrusive yet effective directional signs. Designs for these and for other needed signs should recognize the lawless tendency of bearers of firearms afield to utilize road signs as targets. Enameled metal, otherwise suitable, is revealed as not to be recommended for sign purposes in Alaska.

The tourist whose interest causes him to pause beside the highway in one of the pull-off spaces provided is deserving of recompense in the form of information concerning that which he has paused to contemplate. He should not be forced to perusal of a map to determine what river he has just crossed, or which mountain it is that dominates the horizon. Geological formations of special interest deserve description in simple language, understandable to the lay observer. Unusual stands of timber and other botanical displays worthy of note are doubly significant to the traveler if he is able to learn something of what he is perceiving at the time of perception. The list of phenomena subject to sign interpretation could be extended indefinitely. It is enough to say that preparation of the text matter of such interpretive signs should be left in the hands of someone who can be confident of the technical authenticity of the information conveyed, and is yet able to keep in mind the non-technical background of the readers who will profit most from reading the signs.

Any general policy governing the installation of interpretive or commemorative signs should be based upon three theses; (1) that signs should be erected only where there is something really worth showing, (2) that where signs are justified, opportunity should be provided for travelers to read

without endangering themselves or others by stopping on the highway, and (3) that any view or interest point which deserves a pull-off space for inspection also merits an explanatory presentation. Wherever it is possible, each stopping-place should be provided with a supply of potable water and simple toilet facilities. Thirst and other importunities of the body are seemingly accentuated by alighting after protracted periods of riding.

The injurious effects of unrestricted advertising sign programs along the highways are too generally realized to require further comment. Many of the states have spent large sums to allay an evil which has been allowed to develop unchecked through lack of understanding of its undesirable characteristics and potentialities. The roadsides of Alaska are singularly free from advertising because of the commendable attitude of the Alaska Road Commission toward such activities. It is to be hoped that the condition will continue as use becomes heavier.

TEMPORARY ACCOMMODATIONS. Wording of the original order of July 20, 1942, withdrawing the lands along the Alaska Highway defines its tenure as "pending definite location and construction of the Canadian-Alaskan Military Highway." It is assumed that the withdrawal, perhaps decreased in width, will remain effective for some time. In this period developments through private enterprise will be impossible, precluding advance provision of facilities to serve the traveling public.

As a temporary expedient pending erection of more permanent and suitable structures, the suggestion has been made that construction camps used by the contractors for the Highway be operated as lodging and meal stops for tourists. These camps, spaced at intervals averaging about 25 miles, will have no presently contemplated use after the period of military supervision, although it is understood that specific buildings in certain camps which lend themselves well to incorporation into operating facilities needed by the Army will be utilized for that purpose. Other camps may be required for use elsewhere and removed before the Highway is opened to public travel.

Wide variation is evident in the camps, although they resemble basically the portable type used by the Civilian Conservation Corps, but shelter about half as many persons. Construction was often of unseasoned, rough-dimensioned, locally-produced



Figure 46.—Site for a view overlook, Glenn Highway.



Figure 47.—One of the better construction camps, Alaska Highway.

lumber. Some were winterized, to an extent, others not at all. The camps most recently built, as well as many of those used by contractors for allied installations which followed the road, contained buildings of more finished character. A typical camp included four barracks, mess-hall and kitchen, contractor's office, and combination office and quarters for the supervising personnel.

Water supply was in keeping with the temporary nature of the camps, although wells were drilled in at least two locations. Tank wagon haulage to elevated tanks was more commonly used to provide water for cooking, bathing, and laundry purposes. Use of pit latrines was almost universal. The base camp, three-fourths of a mile south of Tok Junction and longer used than most of the field quarters, boasted somewhat better construction, including water supply and sewage disposal systems. Perhaps these utilities might be converted to the temporary use of any community which may arise at the road intersection north of them.

Although selection of camp sites was primarily upon the basis of convenience to the work project, they were often installed in the most scenic spot to be found along the road within the confines of the residency or contract unit.

The use of such camps as still remain in place, for feeding and lodging the tourist public, must be regarded as a makeshift device, unsatisfactory at best. The expense of conversion to this use would be considerable, and complete rehabilitation would be needed in many cases. It would seem much wiser to discourage travel over the Alaska Highway until it is possible to develop certain widely-spaced, selected units of those planned for the eventual program. Failing that, educational programs should be planned and set in motion as soon as possible, to acquaint potential tourists with the true state of affairs, including not only the condition of the Alaska Highway, but also the location and condition of all the connecting links of the Territorial road system, the availability of food, lodging, gasoline and repairs, and the cost of services and supplies as compared with prices in the States. As long as war conditions pertain, these information programs would necessarily be subject to acceptance by the War Department as to initiation and content. Since time is ample, they should be designed to bring to future tourists a comprehensive understanding of the points at issue, but in a gradual manner, so as not to confuse them by a sudden and all-embracing burst of controverting data.

This does not mean to say that Alaska is not a wonderful country, that the costs of the trip in time, physical comfort, and money will not be amply repaid in memories which will be cherished so long as reason remains. It does mean that the traveler should be made aware in advance of what these costs will be, as well as of the wonders to be seen, so that he may budget his resources of time, funds, and strength to permit the extraction of every last possible pleasurable experience from the journey. Incalculable harm will be done unless steps are taken, in sufficient season before the Highway is opened, to refute the erroneous impressions which rainbow-hued presentation of travel conditions have engendered in the public mind.

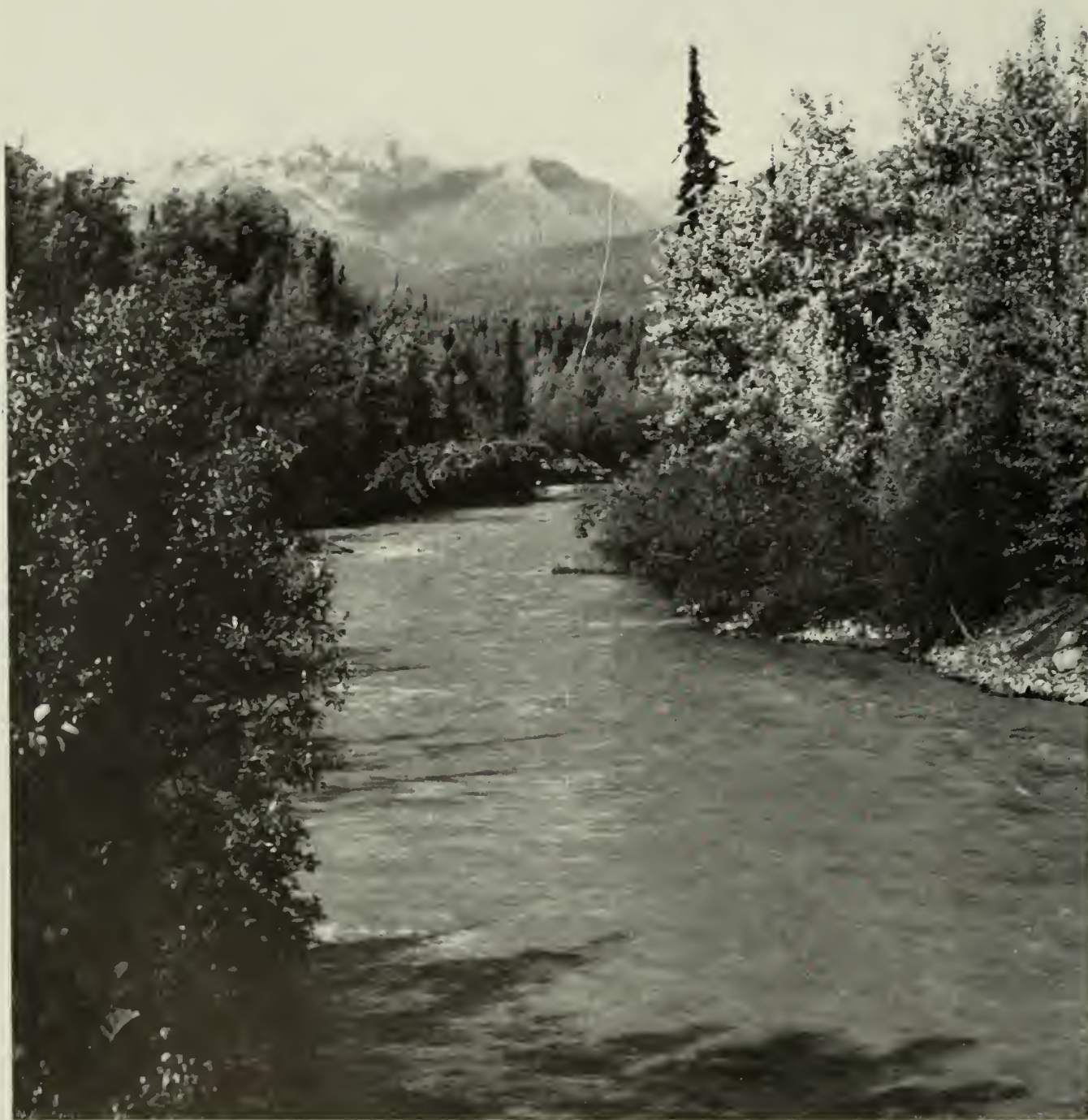


Figure 48.—Chickaloon country.

A PLAN FOR RECREATIONAL FACILITIES

After considering the character and volume of use which may be made of the roads in Alaska, the ways in which they must be improved if recreational use is to be commensurate with opportunities offered, and types of facilities which must be provided for the convenience of users, the next step is to plan for devoting to recreational use such lands along the highways as are most valuable or necessary for that use, and to recommend an adequate but not excessive distribution of related facilities.

To accomplish this step involves propounding and solving several questions, as follows:

- (1) What is the minimum amount of land needed for recreational use?
- (2) Are the lands selected better used for this than for any other purpose?
- (3) Under what orderly procedure must this use of lands be made?
- (4) For the entertainment of visitors, what must be the distribution of the facilities previously determined as needed?
- (5) How can these facilities be arranged to best serve each type of recreational use, or to meet, at once, the needs of several kinds of use?
- (6) What form should be followed by additional or subordinate installations functioning primarily as conveniences to the traveler?

THE LAND PROGRAM. The survey has revealed little need to set aside large tracts along the highway to protect scenic, scientific, or historical values, or to use these values for recreational purposes. Such a result, with or without foundation of fact, has been feared in some quarters. In Alaska as in the States, bitter antipathy has been fostered toward actions which seek, for whatever purpose, to reserve land in public ownership. Advocates of unrestricted private opportunism should have little ground for complaint in land actions which will be recommended by this survey.

Highway Rights-of-Way. To protect the scenic

attractiveness of Alaskan roads, full consideration should be given to establishing definite minimum widths of right-of-way for all highways beyond the precincts of planned or developed communities. The charm of the countryside would thus be retained, offensive intrusion of billboards prevented, and the value of the roads to attract favor for Alaska maintained without impairment.

It is recommended that a uniform width of 300' on each side of the center line of the traveled way be adopted as a minimum, subject to further increase in locations of particular or peculiar attraction. Application should be to all roads in the Territory and not alone to the Alaska Highway. Withdrawal of at least one-half mile on each side of the Alaska Highway and the Abercrombie Trail from Gulkana to Slana should be kept in effect long enough to allow further study and final determination of right-of-way widths in these sections. Lands previously patented within 300' of the traveled way obviously would be exempt from the provisions of right-of-way establishment. Possibility is suggested of buying privately-owned property within the specified belt which is likely to be developed unfortunately.

Within the right-of-way no private construction should be allowed, except necessary access roads to holdings beyond it. Encroachment of buildings and advertising signs should be prohibited. Cutting of timber within the right-of-way should be solely the function of the administering agency, practiced for betterment of the scenic environment. Latitude is indicated in carrying out the process of judicious cutting; the administering agency might elect in one location to do the work with its own personnel, in another to mark the trees to be removed under its supervision by the owners of abutting property. Unrestricted activities of this nature may wreak permanent harm; properly directed selective cutting will act to the advantage of the highway and all those who pass over it.

Communities. Development of communities along the highways will key closely with tourist use.

Growth of these nuclei will be stimulated by cash expenditures by travelers for refreshments, food, lodging, souvenirs, and services to automobiles. Conversely, the amount of use to be made of the new communities by tourists will depend upon the manner in which they are planned and their growth guided. The older towns in Alaska, rich in their historical background, will compel attention from the traveler by that simple fact, often in spite of haphazard arrangement and growth which adds little attraction or comfort. New communities, lacking this background, must depend for tourist appeal on the appearance which they present and comforts which they make available. After the first flush of curiosity-travel has subsided, continued travel to Alaska will be affected by these factors.

Necessary legal machinery already exists, under various legislative acts and executive orders, to effect the required results. The establishment of townsites and control over settlements until they reach the proportions of cities vests with the General Land Office. Officials of that agency, in Alaska and in Washington, are keenly aware of the effect which the new highway network will have upon the development of communities, realize the value of attractive communities to the future economic welfare of Alaska, and are giving careful thought to revisions of procedure or policy necessitated by the increased import of tourist travel in the Territorial picture. Their sympathetic and forward looking attention augurs well for the success of future Alaskan communities.

It is recommended that withdrawals from entry be maintained, or established if not already in force, within a two-mile radius from points about which the General Land Office may expect development of communities, that the period of such withdrawals be devoted to preparing definite plans for suitable development, and that these withdrawals be relaxed at the earliest possible moment, individually or as a group, to permit installation by governmental agencies of such facilities as may be needed to carry on their respective functions, and by private capital of the different enterprises which go to make up a community, all in conformity with the plans which shall have been prepared. These plans would define more desirable arrangements than the standard rectangular 5-acre plots which have been adequate heretofore, and would serve

as instruments of zoning for the localities concerned. Careful advance planning would largely avoid the necessity for later adjustment to ultimate plans, perhaps not too easily made because of unplanned construction.

Provision of space for playgrounds and small city parks is an important consideration in planning for potential communities, and should be included in the suggested program of plans.

Review of sketch plans, worked out broadly but not in detail needed as a prelude to development, indicates that the average area set aside for each of the new communities should be about 4,500 acres, or seven sections of land.

Vacation Areas. Reservations of land for public use are necessary beyond the usual right-of-way in all locations selected as of primary value for recreational centers. The General Land Office has looked well to the future in setting aside for a recreational reserve a certain portion of the lands adjacent to the shore of Salchaket Lake, to serve particularly the day-use needs of families from the Fairbanks district. Recent withdrawals of public lands within one-half mile of the shores of Birch, Summit, and Paxson Lakes are clear indications of recognition of the necessity for safeguarding the rights of the general public to use the resources which are its property.

In consideration of the past and probable future rapidity of growth at Anchorage, similar action to care for the needs of citizens of that metropolis appears advisable. No one particular site has yet demonstrated its peculiar fitness for selection.

Of the areas to be recommended for development as vacation centers, Mentasta Lake may be regarded as typical. Here is one of the few instances in which it will be desirable to designate a considerable acreage of land as excluded from uses inimical to realization of fullest recreational potentialities. Lands adjacent to the lake and within range of view from its shores are better suited and more valuable for recreation than for any other end. Therefore no incidental use which would detract from this end should be permitted. Reservation to recreational purposes should entirely encompass the lake, and extend far enough in all directions to control the character of the setting. It is estimated that about 6,400 acres of land, exclusive of the area of the lake, will be adequate.

Roadside Overnight Stops. Not much land beyond normal right-of-way limits will be needed for the facilities planned especially for overnight tourist stops in natural surroundings. Sites which meet all criteria of scenic desirability and convenient spacing are apt to be so restricted in workable area that the units must perforce be set close to the traveled way. In most cases, all the land that will be needed beyond the confines of the building groups is a buffer strip deep enough to preserve the naturalistic character of the setting. About 600 acres for each site appears to be the average requirement for this purpose.

Scenic Easements. The Alaska Highway is not and probably never should be a parkway. However, while the withdrawal is in effect and before more lands are patented, there is a chance to protect forever such scenic values as are evident, without unduly detracting from the utilitarian possibilities for settlers and commercial interests.

The long, level tangents near the Richardson Highway and Tok Junction are in a country which may eventually be developed for agriculture. Complete clearing of farming lands up to the right-of-way line in such situations will not invalidate the scenic interest; distant views now screened by walls of standing timber may thereby be opened to vision; well-kept farm lands are matters of significance and interest to the thoughtful motorist.

East of the Tanana River crossing, and sometimes between there and Delta Junction, the story is not the same. The road skirts the foothills, sometimes climbing to view-commanding heights which afford intermittent vistas of the valley floor and the lakes dappling its surface. Conditions are similar

over almost the entire length of the Mentasta Road, in midsection Glenn, and on the Richardson.

Uphill views are not so significant; therefore clearing or construction needs little restriction on that side. The valley foreground below the roads should be maintained in a natural state, with no distracting evidences of human occupation to detract from Nature's panoply. Patents to lands abutting the roads from the lower side could well stipulate that no clearing or construction be made within one-quarter mile of the road, except to permit access to properties beyond, and then not more frequently than at set minimum distances. Special legislation would be needed for insertion of such scenic easements.

DISTRIBUTION OF FACILITIES.

New Communities. New communities often arise at or near the intersections of major highways. The site in the Territory which promises to develop to most pretentious dimensions is beyond the Alaska Highway, although affected by it and by other military installations. This is the junction of the Richardson and Glenn Highways, about 2 miles east of Glennallen. Traffic originating from Fairbanks, Anchorage, Valdez, and Whitehorse must pass through this junction to reach any of the other places named, save only between Fairbanks and Whitehorse. In addition, its relative nearness to airport and radio installations will favor an early and rapid settlement. If an extensive system of bus lines is inaugurated, as seems probable, the importance of the intersection as a transfer point will be second to no other except Fairbanks.

The other junctions are at Delta, Tok, Northway, Tanacross, and Gulkana. Probably only the first two of these merit immediate consideration. Delta Junction is near an airport and in a region of good agricultural possibilities. Tok Junction places high on the list only because of strategic location at the point where traffic from Canada and the States is divided, to go on to Fairbanks or south to the seaport cities. Its physical site has not much to recommend it, lying in a flat, spruce-clad, gravelly plain, with good sub-surface drainage its sole attraction. Northway and Tanacross are both near airfields; Tanacross is only 14 miles from Tok Junction and its development will thereby probably be retarded.



Figure 49.—Foreground views require protection.

Concerning the place which present and possible communities will fill in postwar automobile travel to Alaska, it may be said (1) that accommodations of truly urban character are already to be found at Fairbanks and Anchorage; (2) that Glennallen may be developed within a few years by private enterprise to include a country hotel; (3) that similar development may follow more slowly at Delta Junction and at Tok Junction; and (4) that other intersections will probably boast little more than tourist cabin groups for some years to come.

Vacation Areas. The following list includes some of the existing and potential major vacation areas which will appear in Alaska if adequate coverage is to be assured. It is to be noted that some of them are not reached by road, and so do not come within the province of this report, but should be included in future studies and investigations.

- A. Mount McKinley National Park. Established facilities for public accommodation; serves a national purpose.
- B. Glacier Bay National Monument. As yet not developed for public reception; will serve nationally.
- C. Katmai National Monument. Undeveloped to accommodate the public; will serve national purposes.
- D. Salchaket Lake. A colony of private cottages; needs public day-use facilities; of particular service to Fairbanks.
- E. Circle Springs. A commercial resort; now serving Alaska at large, but especially Fairbanks; must be considerably improved if its field is to be broadened.
- F. A potential area. To serve Anchorage as Salchaket does Fairbanks; perhaps the Chickaloon, north of the Glenn.
- G. Mentasta Lake. A potential area; south of the lake and on the road; will serve both Alaskan and national use.
- H. Summit Lake. A potential area; southwest of the lake; highway connection required; same character as Mentasta.
- I. The vicinity of Nabesna. A potential site; accessible to the big-game country; scenic environment.
- J. The vicinity of McCarthy. Similar to Nabesna in setting and potential use; dependent upon access from Chitina.

Roadside Overnight Stops. Vacation centers and communities will not serve all the needs of Alaskan travelers. They must be supplemented by overnight stopping places, conveniently spaced along the way. At what interval along the roads should provision be made to entertain the tourist, and how extensive should the average unit be? It is appropriate to examine in some detail the way in which the answer to this question is affected by the medium of highway transport, whether by privately-owned motor car or by commercially-operated bus.

It is estimated that average tourist travel per hour in Alaska will not exceed 25 miles, a lower figure than prevails in the States. This is not because of road conditions unfavorable to higher speeds, but because there is much to be seen from the roadsides of Alaska and because so many of the passers-by will be traveling Alaskan roads mainly for the purpose of seeing these things.

On this basis, average daily travel by private car would be about 200 miles, with due allowance for sightseeing, photography, relaxation, meals, and incidental activities. Assuming that there is no special provision for roadside restaurants, that mid-day meals are obtained at inns which afford beds as well, and that there will be no travel before breakfast or after the evening meal, the greatest spacing possible for such facilities is 100 miles.

Such separation serves basic preliminary needs for accommodations, but is far from the optimum for eventual development. The tourist becomes tired, even amid superlative scenic surroundings, after uninterrupted hours of riding; the "pause which refreshes" is not just advertising hokum. Again, Alaska's long, light summer evenings tempt travel after the evening meal, but not to the extent of 100 miles if it is known to be that far to the next potential stopping place.

The same total number of rooms will be required to house the visitors to Alaska, whether they are assembled in large establishments far apart or in smaller groupings closer together. In keeping with the character of the country to be traveled, it seems desirable to accept the latter arrangement, particularly since it admits of greater flexibility in the tourist's schedule and adds largely to his convenience. So far as the requirements of the independent traveler are concerned, a spacing of about 35

miles between accommodations available for overnight stops appears most logical.

Consideration of the welfare of those who will travel by bus and of the convenience of those who will operate them proceeds by various channels but arrives at conclusions not greatly at variance with those which stem from regard for private drivers. Those who operate bus systems to serve Alaska and its visitors will need to take into account certain differences in conditions from those which pertain in the States.

A schedule of 30 miles an hour over the major length of the Alaska Highway appears feasible. It may be necessary to adhere to a slightly slower pace in the long climb from Haines and the tortuous journey through Mentasta Pass. Similarly, ascent of the Richardson Highway from Valdez to Thompson Pass may be slowed. The sections north and south of Isabelle Pass are not as easily traversable as the Alaska, but a speed of 25 miles an hour can probably be maintained. The Steese Highway from Fairbanks to Circle is currently below the standard of the Alaska Highway, but will perhaps be improved as demands of traffic increase. In any event, bus operation between these two termini will probably constitute a unit independent from that over other roads, even though jointly managed, because most of those who take the trip will stop overnight at Fairbanks and start northward early in the day.

Because of the expected preponderance of tourist travel over that for business reasons, especially in the summer season, schedules should not be put on the 24-hour basis which is common in intercity runs throughout the United States. Travel should be suspended at night and passengers permitted the opportunity to rest in comfort. Particularly is this true in the case of those whose whole journey, from the States and returning thereto, is made by road. The long, light evenings have been cited as suitable for travel, and it would be possible to split the bus-travel day into three equal portions, set apart by stops for meals at noon and in the late afternoon. For general purposes, however, the two-trick day appears more advantageous.

From an operating viewpoint, runs should be based upon units of about 150 miles, the distance which will be covered in each of the two equal daily periods if feasible speeds are as contemplated.

Each driver would round-trip his 150-mile division daily, eating once with his passengers at the point most distant from his home. In the States, travel is usually interrupted by relaxation stops not more than two hours apart. The 35-mile spacing adopted for the accommodation of private car passengers is less than this, but would perhaps not come amiss.

The present roads in Alaska lend themselves well to such a setup. Consideration must be given to operation over those parts of the Alaska Highway which lie in Canada, although such come within the purview of this survey only collaterally. It is assumed that Whitehorse, as the only significant community along the Highway, and as a junction with rail and steamship lines, will be an important stop on any bus system which may be inaugurated. From Whitehorse it is 100 miles to the Haines Cutoff and 307 miles to the 141st meridian.

Assume "through" coaches traversing the Highway from Fairbanks to the States, or even only as far as Whitehorse. Starting from the Interior city it is 104 miles to Delta Junction, transfer station for persons bound for Anchorage or Valdez. From this point it is 108 miles to Tok Junction, where passengers from the States are transferring for the seacoast cities. The distance from Tok Junction to the Yukon boundary is but 94 miles; the traveler is now half way to Whitehorse. The necessity for a stop at the Border, for customs and immigration formalities, makes it an important station in the schedule of operations.

Other "through" runs might be operated from Delta Junction to Valdez, along the Richardson Highway, and from Tok Junction to Anchorage by way of the Mentasta Road and the Glenn Highway. Scheduling with respect to arrival at and departure from the transfer point at Glennallen must be carefully made if interchange of traffic in all directions without long waits is to be facilitated.

Probably a single trip daily in each direction will satisfy normal requirements over the Steese Highway. Special service from Fairbanks to connect with Yukon River steamers can be instituted if the need arises. Shuttle trips on the Edgerton Cutoff can probably be accomplished by station wagon or by some other light type of equipment, without resort to the conventional cross-country bus.

Accommodations for bus passengers will not dif-

fer from those required by travelers by private motor car. The same facilities will entertain both types of tourists. Because of schedule restrictions, bus stops for meals and lodgings will include perhaps only a third of the stopping places which are made available to the general public.

Tentative locations for major and secondary sites proposed for traveler accommodation appear in both figures 22 and 50. Salient information con-

cerning the individual sites which lie in surroundings of natural character will be found in the tabulation which appears below. Site numbers in the table are the same as those which designate the locations on the maps. Asterisks mark sites which have been selected with particular reference to possible use as headquarters for fishermen and hunters. They will serve additionally as overnight and meal stops for the ordinary tourist.

Sites recommended for development as overnight stops by the roadside.

Site	Highway	Location	Mile	From	Acreage
1	Alaska.....	British Columbia boundary, Haines Cutoff.....	42.0	Haines.....	160
2	Alaska.....	0.2 miles west of the Alaska-Yukon boundary.....	1,221.6	Dawson Creek....	800
3	Alaska.....	8.0 miles east of Northway Junction.....	1,256.8	Dawson Creek....	270
4	Alaska.....	At Midway Lake.....	1,291.9	Dawson Creek....	1,070
5	Alaska.....	2.0 miles east of the Robertson River.....	1,351.6	Dawson Creek....	540
6*	Alaska.....	0.1 mile east of Berry Creek.....	1,377.3	Dawson Creek....	480
7	Alaska.....	1.4 miles west of the Johnson River.....	1,387.8	Dawson Creek....	680
8	Richardson...	1.5 miles west of Shaw Creek.....	80.4	Fairbanks.....	160
9	Steese.....	1.5 miles north of the Chatanika River bridge.....	40.0	Fairbanks.....	510
10	Steese.....	1.2 miles north of Twelve-mile Summit.....	87.7	Fairbanks.....	280
11	Richardson...	Site of the Old Meiers roadhouse.....	175.0	Valdez.....	800
12	Richardson...	South side of Willow Lake.....	89.5	Valdez.....	520
13	Richardson...	Site of the old Ernestine roadhouse.....	63.0	Valdez.....	640
14	Richardson...	1.0 mile north of Thompson Pass.....	26.8	Valdez.....	960
15	Edgerton.....	In vicinity of Chitina Lakes.....	2 ±	Chitina.....	540
16*	Mentasta.....	0.2 miles north of Clearwater Creek.....	57.2	Slana.....	480
17*	Mentasta.....	West shore of Mineral Lakes.....	37.4	Slana.....	600
18	Abercrombie..	Overlooking Cobb Lakes.....	59.2	Richardson Hwy..	480
19	Abercrombie..	Overlooking the Copper River Valley.....	25.2	Richardson Hwy..	270
20	Glenn.....	View of the Tazlina Glacier.....	33.2	Richardson Hwy..	460
21	Glenn.....	View of the Nelchina Glacier.....	85.7	Palmer.....	600
22	Glenn.....	View of the Matanuska Glacier.....	52.3	Palmer.....	860
23*	Glenn.....	At the west end of Long Lake.....	38.7	Palmer.....	640

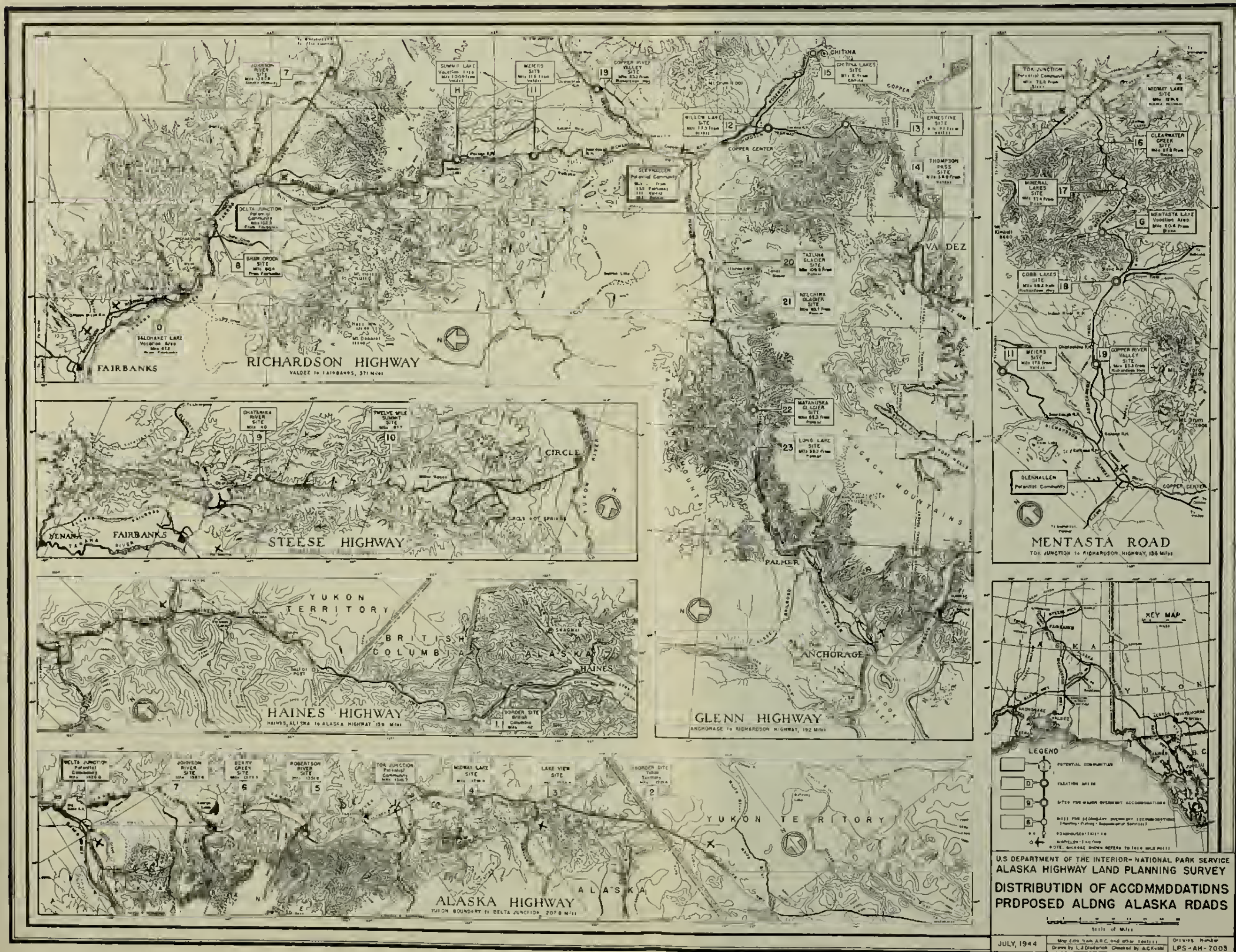


Figure 50.

View Overlooks. As a guide to future provision of parking pull-offs on all the Alaskan roads, the Alaska Highway has been reviewed with particular reference to this phase. The following tabulation lists sites which have been selected. It is not intended to be all-inclusive; hundreds of locations would fill the requirements. It will establish site standards which may later be applied to the other roads of the Territory. The listing indicates mile-post distances from Dawson Creek and the appropriate side of the road for installing the overlook. For the purpose of this listing it is assumed that the Alaska Highway runs east and west.

Mile	Side	Featured view
1,230.6	.... North....	Mirror Lake
1,243.8	.... North....	Rolling terrain
1,254.5	.... South....	Lake country
1,256.0	.... South....	Twin lakes
1,263.6	.... South....	Valley lakes
1,269.5	.... North....	Chisana and Nabesna Rivers
1,272.0	.... South....	Valley of the Tanana
1,277.0	.... South....	Tanana River oxbow
1,278.4	.... South....	Tanana River oxbow
1,285.6	.... North....	Lake-studded valley
1,288.0	.... North....	Midway Lake
1,295.3	.... South....	Alaska Range
1,307.5	.... South....	Tanana River crossing
1,336.6	.... North....	Small lake
1,343.1	.... North....	Tanana River loop
1,355.7	.... South....	Nutzotin Mountains
1,367.5	.... North....	Roadside lake
1,383.1	.... North....	Marsh and mountains
1,386.2	.... North....	Mouth of Johnson River
1,389.7	.... North....	George Lake and mountains

CAPACITY OF FACILITIES. The previous chapter has revealed the conjectural possibility that by 1950 there may be as many as 6,000 tourists in Alaska on an average summer day. How will this horde be distributed, and what will be its effect upon the capacities of the facilities which must be planned for roadside accommodation?

Reference to figure 22 will indicate that the present highway network of the Territory reaches as many as eight existing communities and three locations for probable future communities, places where the traveler may stop for one or more nights. In addition, certain long-established roadhouses will probably continue and flourish in the tourist picture, because of their advantageous location, quality of accommodations which are offered, or a

combination of both reasons.

Ten existing or potential vacation centers have been listed on page 50. Five of these are reached by highway and so will serve as overnight stopping places in addition to their primary function. They are Salchaket Lake, Circle Springs, Mentasta Lake, Summit Lake, and Nabesna. Mount McKinley National Park, although not currently available by road, is so easily reached by rail from Fairbanks that it should be considered to account for a definite portion of the nights which will be spent in Alaska by motorists. Further study of figure 22 and of the table on page 52 reveals that 19 major and 4 secondary sites for overnight stops in natural surroundings are recommended for development.

All these stopping places will not participate alike in the tourist business which is attracted to Alaska; secondary stops along the highways will not benefit as will the communities; variations will be evident in the daily transient population of the communities themselves. Fairbanks will probably rate highest among all the sites, not only because of its own attraction, but because, in addition, it will serve as an overnight stop for most of the tourists who are going to or coming from Circle, Circle Springs, or Mount McKinley National Park.

In the tabulation which follows, an attempt has been made to evaluate the amount of tourist use which will accrue to the various stopping places. The estimate takes into account such factors as intrinsic site-attractiveness, traveler interest, accessibility, location with respect to similar facilities, and necessary duplication of travel.

Full recognition is conceded to the arbitrary nature of the assumptions in the tabulation, and to the currently unprovable character of the earlier derivation of the possible extent of travel by tourists to Alaska. There still emerges an indication of the pattern which traveler visitation will impose upon the economy of Alaska, and of arrangements necessary to care for it.

Accepting the assumptions as sound, it appears that about 45 percent of the tourist-nights in the Territory will be spent in cities, that existing roadhouses will be called upon to shelter approximately 8 percent of the visitors, and that designs for major and secondary overnight stopping places should be capable of expansion to serve as many as 75 and 25 daily patrons.

*Estimated proportions of business accruing daily
to the tourist stopping places of Alaska*

<i>Communities</i>	
Anchorage	500
Chitina	50
Circle	50
Fairbanks	700
Haines	250
Palmer	100
Seward	150
Valdez	250
	<hr/>
	2,050

<i>Potential Communities</i>	
Delta Junction	175
Glennallen	350
Tok Junction	175
	<hr/>
	700

<i>Vacation Areas</i>	
A	450
D	150
E	150
G	250
H	250
I	150
	<hr/>
	1,400

<i>Roadhouses</i>	
Big Delta	25
Copper Center	75
Eureka	50
Gakona	25
Gulkana	75
Paxson's	75
Rapids	50
Sourdough	50
Tonsina	75
	<hr/>
	500

<i>Overnight Stops by the Roadside</i>			
1	50	13	75
2	75	14	75
3	75	15	50
4	75	16	25
5	75	17	25
6	25	18	50
7	75	19	50
8	75	20	75
9	50	21	75
10	50	22	75
11	75	23	25
12	75		<hr/>
			1,350

It will hardly be possible to provide immediately all the accommodations which appear necessary for ultimate usage, nor is such procedure advocated as desirable or wise. After nucleal facilities have been established in locations spaced to allow planned travel without dependence upon camp-out techniques, expansion of sites and development of new ones may be stimulated gradually, as the demand becomes apparent. It is recommended that attention be given first to those locations which will be probable division points for bus operation, but which will also serve for private car passengers, and to the recreational or vacation area suggested for Mentasta Lake.

PLANS FOR UTILIZATION OF SELECTED SITES. It is a primary function of this survey to provide a basis for the establishment of a comprehensive system of facilities for the accommodation of travelers, and to set the theme for component units of the system, by means of sketch plans for typical installations. Preparation of detailed plans or working drawings for the individual buildings is beyond the scope of currently authorized activities, and rightly so, as such action falls within the field of preliminaries to actual construction which may be determined upon the basis of this survey. Detailed plans should be made for any individual site only after that site has been accepted for precedence of construction in the plan for ultimate development, and has been acquired or set aside for the purpose. They should be based upon rather detailed topographic surveys, costs for the preparation of which would hardly be justified for the purpose of deciding whether the particular site should be utilized.

In order to "set the theme", and with no thought of recommending slavish adherence thereto, sample plans are included which suggest the general nature of development which is deemed fitting for each of the several kinds of facilities which have been discussed heretofore as being of significance to the recreational future of Alaska. A layout for a typical community, possibilities for enhancing vacation pleasures at Mentasta, the combination of governmental functions and tourist entertainment at the international boundary, a major overnight stopping place along the highway, accommodations of lesser capacity, incidental conveniences to the traveler; all are suggested rather than imposed.

The Alaskan Community of the Future. Most Alaska communities have grown to their present size with no particular plan. Like many of their prototypes in the States, they show it, perhaps more because they are so few that they focus greater attention upon themselves. Whatever their genesis, be it the mining camp, fishing port, crossing of trails, or trading post, the pattern of growth has followed largely that of the remembered small town at home. The main street strings out one, two, or six blocks long, the warehouse may be next to the postoffice, the laundry and cleaning establishment across the street from the swanky hotel, or the liquor store next to the evangelist meeting place. Here is a vast country, with perhaps more room than anything else, yet town lots crowd each other in typical American fashion.

The manner in which communities arise upon lands now in the public domain is a matter of particular interest to the General Land Office. As earlier related, it is keenly aware of the effect which the new highway will have upon such developments, and is giving thought to means for helping Alaska to obtain the most desirable results along such lines. This report is concerned with the subject because of the effect which the character and appearance of all the communities of Alaska will have upon the continuing volume of tourist travel. As the result of various discussions with representatives of the General Land Office, and prompted by suggestions from them, sketches have been prepared to show the manner in which attractive, functional communities may be developed through proper planning.



Figure 51.—Anchorage, Alaska—1944.

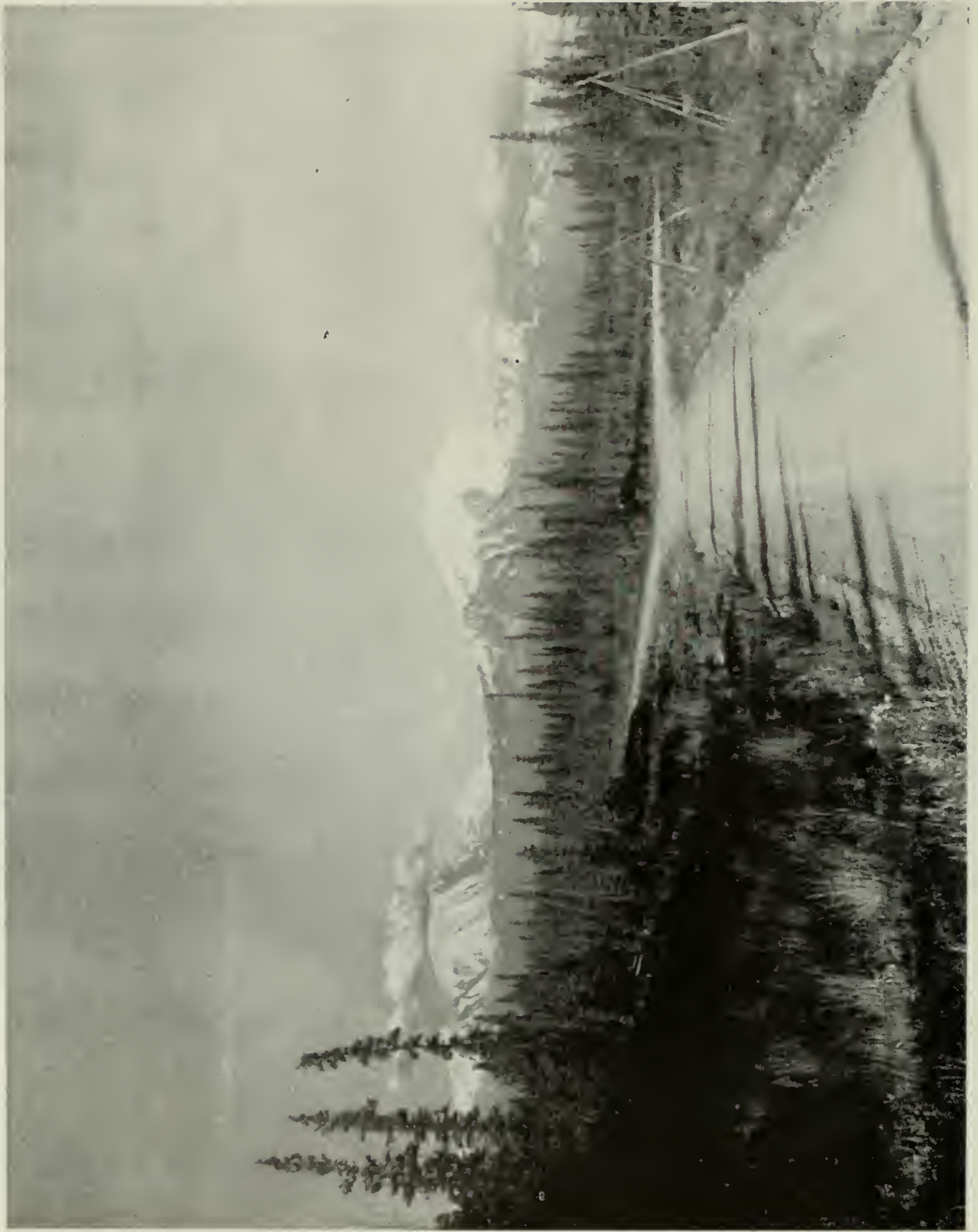


Figure 52.—Opportunity for a planned community.



Figure 53.—Fairbanks, Alaska. (Copyright 1938, Pacific Aerial Surveys, Inc., Seattle)

Figures 54 and 55 present suggestions for the type of new community which will be dependent for its existence chiefly upon the tourist business flowing through it. The plans do not mean to say "This is just the way a new community should look". They do attempt to say "This is the way in which layout patterns of new communities and

towns should be determined". Whatever their location, size, or reason for being, all communities are composed of certain necessary elements. These vary in number, space requirements, and function. The wise plan prevents all the wrong things from getting into the wrong places, and makes it easy for the right ones to be put in the right places.

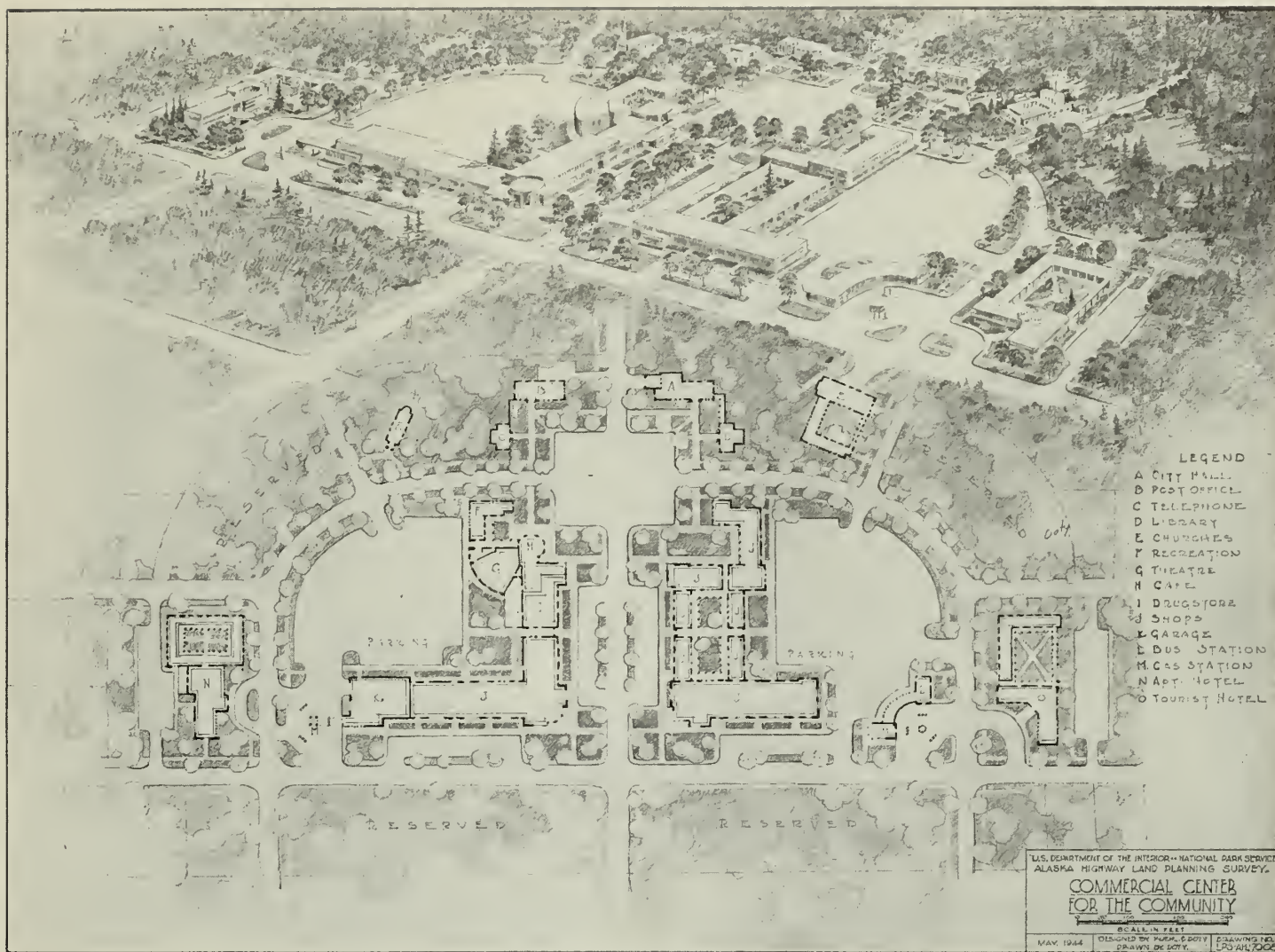


Figure 55.

In this suggested plan for the intersection of two major highways, the community itself is placed off the main traveled road and separated from it by a protective right-of-way. Consideration has been given to a zoned relationship of all the community elements around which the street plan evolves. Commercial activities have been centrally located with reference to residential and industrial areas. Provision is made for future commercial expansion by the establishment of reserved areas around the commercial center. The space on either side of the town square has been designated for park purposes. Spacious off-the-street areas for vehicle parking appear in the initial plan in direct relation to business functions. Tourist hotel accommodations are provided close to the business section.

The street pattern indicates a minimum number of cross-street intersections, and provides for direct circulation between residential neighborhoods and the business section. Combination school and park sites are so placed as to serve neighborhood units. Industrial functions occupy an isolated location away from residential and business zones, and yet easily accessible from them. A buffer reserve area surrounds the industrial section. Land within the confines of an established protective zone which surrounds the community should be held to limited agricultural usage. By this means, possible future expansion of the community will not be hindered.

Figure 55 is an enlarged presentation, in plan and perspective, of the commercial center which is a part of the general community plan.



A Typical Vacation Area. Not all the potential vacation areas suggested in the list on page 50 can be reached by highway. The one at Mentasta Lake does fall in that category, and is recommended for early development as well. Since it is typical of vacation areas as a class, general suggestions for its development have been incorporated in sketches which appear as figures 56, 58, and 59.

Figure 59 shows the relation of the selected site to the lake, to the surrounding countryside, and to the alignment of the Mentasta Road. Approximate limits are suggested for the reservation of enough land to protect scenic merits of the environment. These enclose about 7,360 acres, of which roughly 925 are in the waters of the lake.

Preliminary highway surveys by the Public Roads Administration contemplated a location through the pass about 3 miles east of the lake, rather than around its western tip. It is possible that future improvements to the Mentasta Road may follow this shorter route. In such event, about 8 miles of the existing road which passes north and west of the lake should be retained, for access to the vacation area. The section southward toward Slana could be abandoned, particularly in view of the necessity for maintaining a second bridge across the Slana River, the largest stream in the neighborhood.

If the potential highway connection from Mount McKinley National Park to Mentasta Lake comes into being, it will perhaps drop down the northeast side of the Slana River to join the existing road northwest of Mentasta Lake. Revisions of the vacation area reservation may then be involved.

If there is real probability of this connection, an alternative vacation center site on the northern shore of the lake merits serious consideration. It does not offer as scenic vistas as those which are apparent from the selected site, however.

Physical characteristics of the Mentasta site are outlined briefly in Chapter IV, but a better idea of its beauty may be gained from figure 9. The photograph was taken from the spot suggested as a location for public accommodations.

The development outlined in figure 56 groups all facilities rather closely around a central lodge building located on a short spur road from the main highway. Besides its guest facilities, the lodge includes a general store, space for garage service and motor repair, equipment storage, warehouses



Figure 57.—Mentasta lodge site, from the upper end of the lake.

for goods and food, and a screened service yard.

Beyond the lodge is planned a modest colony of tourist or vacation cabins, equipped for sleeping and cooking. This group can be extended at will. Since Mentasta Lake is expected to appeal to the fisherman, the housekeeping cabin appears to be a necessary and desirable adjunct to his enjoyment of the area, whether his stay be restricted to a few days or of several weeks duration. This type of facility, too, would better suit the pocketbook of the tourist with a large family.

Even less costly opportunity for a stopover at Mentasta is afforded by the campground, serviced with necessary sanitation and cooking facilities. While the demand for campgrounds in Alaska is not expected to be heavy, some will no doubt be needed. An area suitable for such use should be designated and made usable, although its extent should be kept to limited proportions until the need for further expansion is proved.

Recreational activities at Mentasta will probably center around such uses of the lake as boating and fishing. There is swimming in Alaska, and perhaps guests at the lodge will use Mentasta Lake for that purpose, but it appears hardly necessary to plan bathhouses or other special facilities.

At the water edge, some 35 or 40 feet below the lodge and accessible from it by a proposed ramp and steps, are the boathouse and pier. These features are designed to offer storage and rental of boats, outboard motors, and fishing gear, and the sale of bait. Facilities for boat launching appear more feasible near the road at the upper end of the lake than in the vicinity of the boathouse.

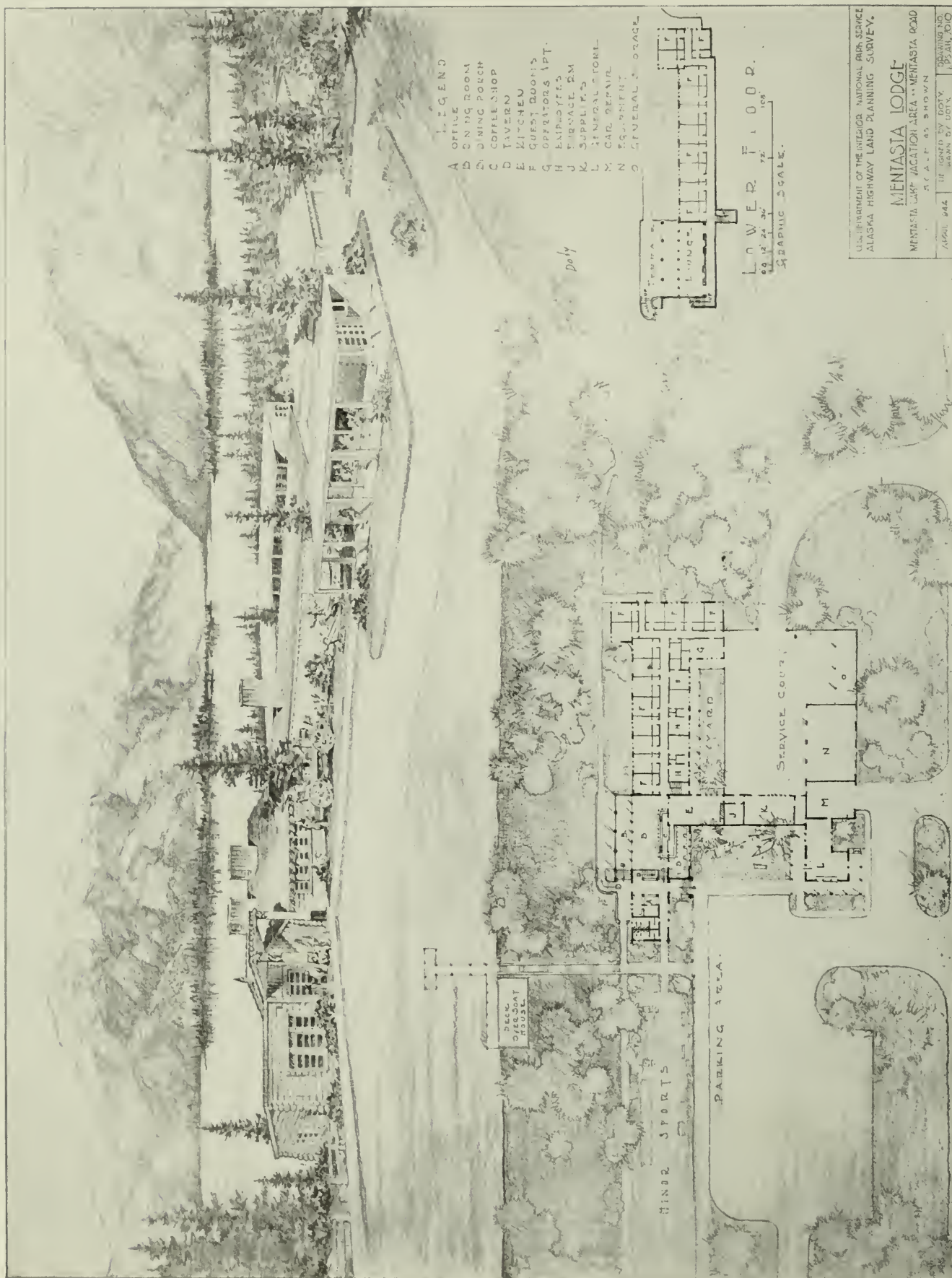


Figure 58.

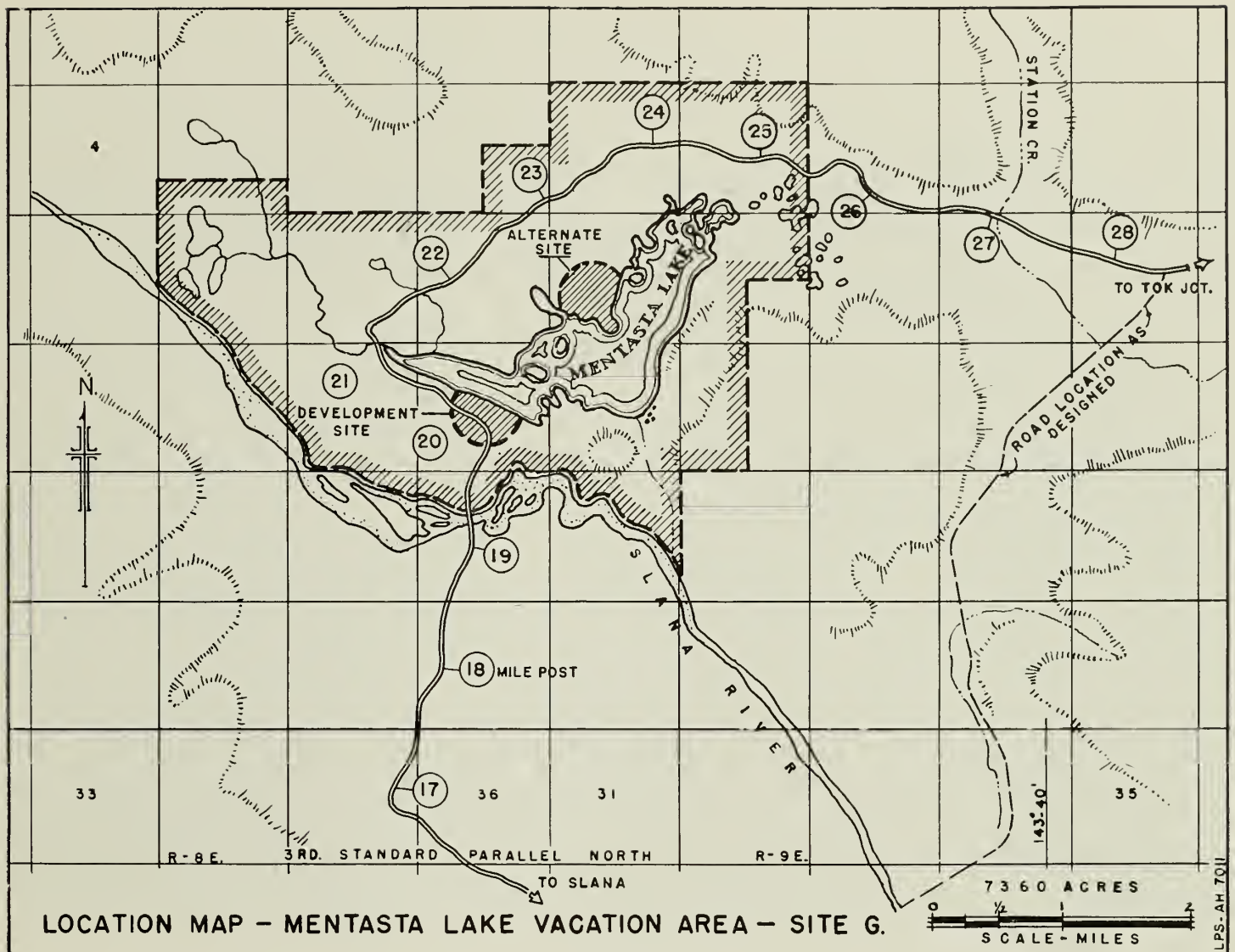


Figure 59.

As previously stated, vacation pleasure in such natural spots as Mentasta should not be dependent upon participation in competitive physical sports. Nevertheless, there will always be indefatigable enthusiasts to insist upon them. For such, the plan provides a minor sports area. The diversions offered might include tennis, badminton, archery, horseshoes, and croquet.

When sufficient demand becomes evident, a stable of saddle and pack horses for short trips into the countryside or for more ambitious hunting forays might well be incorporated into the plan.

It is not difficult to visualize the need for a landing field, for light planes or helicopters or both, near the lake. An area west of the proposed development site appears to warrant investigation to determine its suitability for such use.

Figure 58 reveals in some detail a way in which Mentasta lodge could be developed. The building is placed on the bluff overlooking the lake, at the top of the steep slope to the shore. The location permits excellent views from the guest rooms, as well as from the dining room and lounge. Dining room, coffee shop, and tavern are on the upper floor, at entrance level; the lounge and terrace are below. Twenty-five guest rooms, each with its bath, are planned for the initial lodge unit; by extending the lakefront wing the capacity can be enlarged easily to 50 or more as the need arises.

Employees' quarters and operators' apartment are on the upper level, on the side away from the lake view. Lobby, curio sales, office, and rest rooms are in the one-story entrance wing. Log and frame construction reflects the earlier roadhouse.

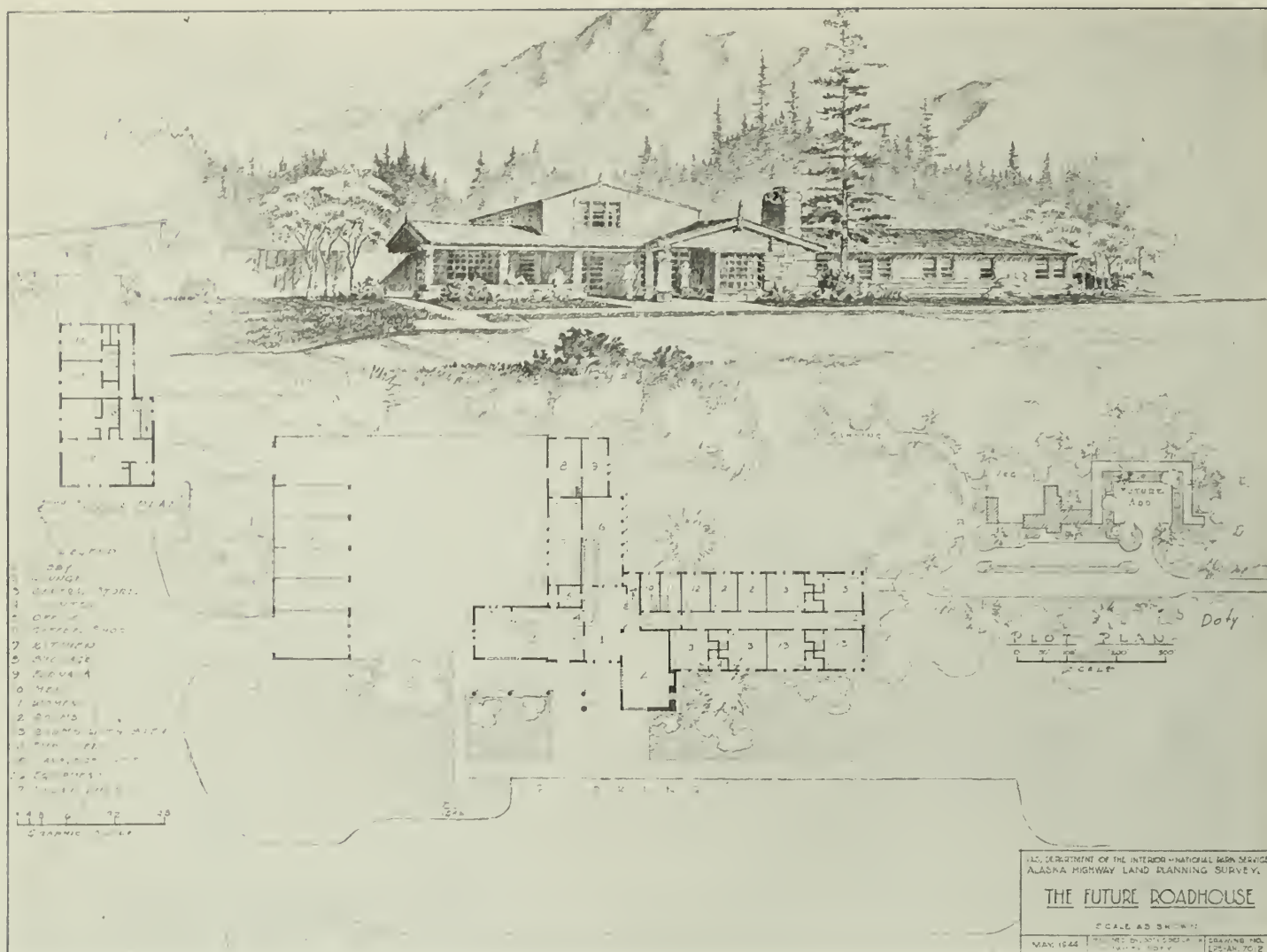


Figure 60.

An Overnight Stop by the Roadside. Figure 60 outlines the type of facility which is deemed appropriate for overnight stopping places along the roads of Alaska. In size and function it somewhat resembles the better existing roadhouses; its architectural treatment, in fact, recalls that predecessor. Size, arrangement, and architectural detail will vary throughout a system of stopping places, but the basic elements here assembled will be necessary to some degree in all such locations.

The example is located adjacent to the highway. A lodge building supplies major services, offering a comfortable and attractive lobby and lounge, rest rooms, coffee shop with counter and table service, and sleeping rooms with and without bath. In the main structure is a small general store, intended to serve local inhabitants as well as tourists who would purchase foodstuffs, gasoline,

souvenirs, and photographic supplies. Quarters for the resident manager and employees are designed to permit winter occupancy. A well defined parking area will serve bus and passing motorist alike. The service court is fenced, to appeal to the eye of the visitor and to discourage prowling wildlife. The necessary equipment shed and motor repair shop form one side of it. The service roadway continues for a short distance to a small campground, which may be either eliminated or expanded as demand may indicate.

A plot-plan insert indicates the manner in which needed additions can be made, either integral with the building or detached as a tourist court.

Initial units of stopover accommodations should be designed to permit expansion to whatever room capacity may ultimately be needed. Dining rooms should also be capable of enlargement. In some

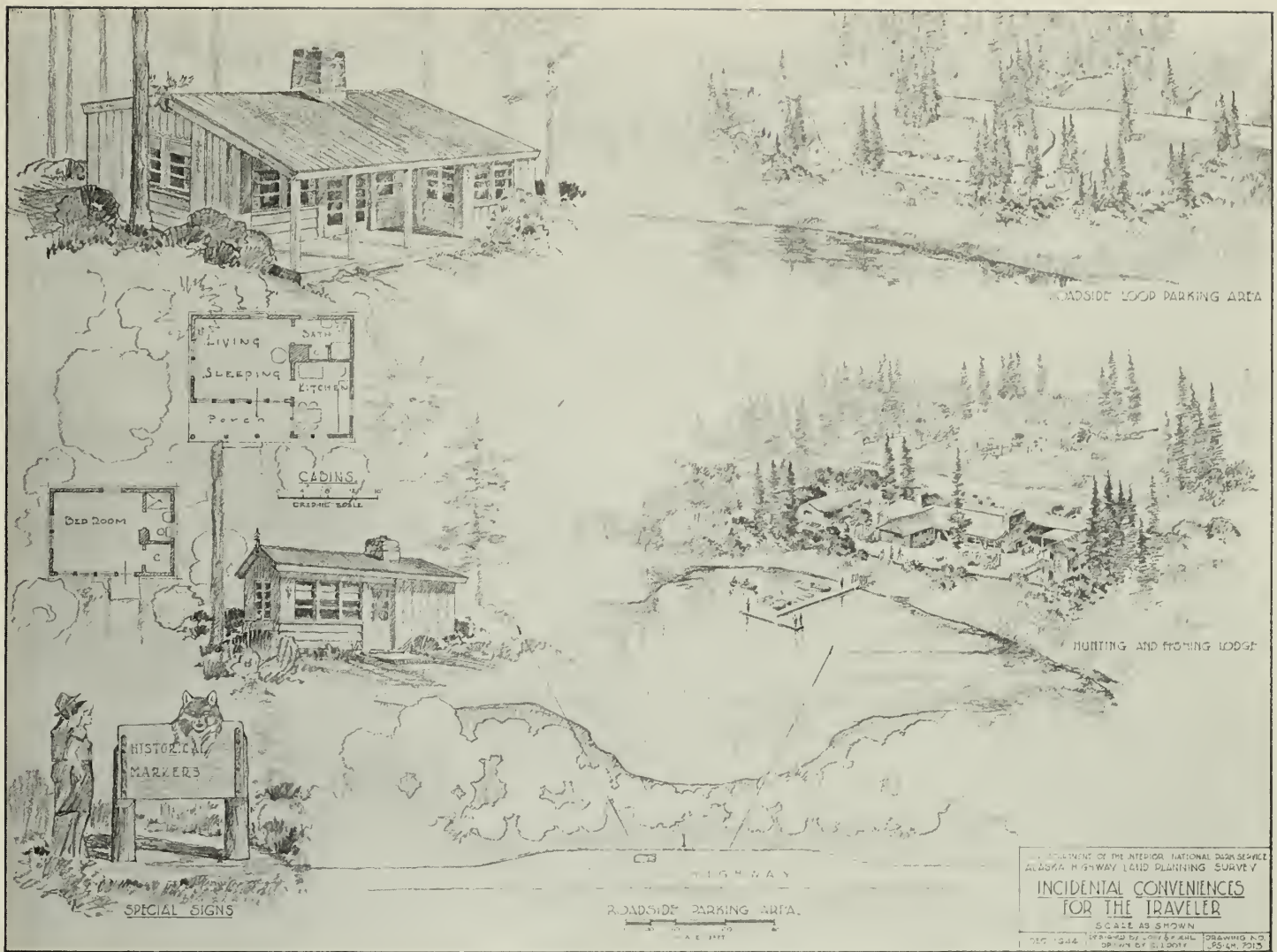


Figure 61.

locations the demand for meals may outrun the call for rooms. To meet such a demand, the store in the accompanying example might be converted to dining room, and its facilities housed in a new building.

Incidental Conveniences. Figure 61 portrays some of the miscellaneous conveniences to the traveler which have been suggested in previous chapters.

Regulating, warning, and guiding traffic signs should probably be in accordance with the standards used by most states, as indicated in the "Manual on Uniform Traffic Control Devices for Streets and Highways". The standards promulgated regulate use, color, and shape.

For historical markers and special informational signs, a motif of design varying from that of the

standardized highway sign is suggested, because of their special use and limited number. On account of the misuse to which metal markers are apt to be subjected, as previously discussed, these special devices might well be of wood, possibly with the decorative theme sandblasted in relief, and with lettering incised or in relief and painted. Above all, they should be functional, brief and legible, and placed with relationship to the object, site, or feature which they describe.

Two types of off-road parking areas are suggested in figure 61. The simpler type is merely a lateral extension of the road surface to allow parallel parking. The other involves a complete loop away from the main road, with shoulder-widening on the through highway as the loop is approached.

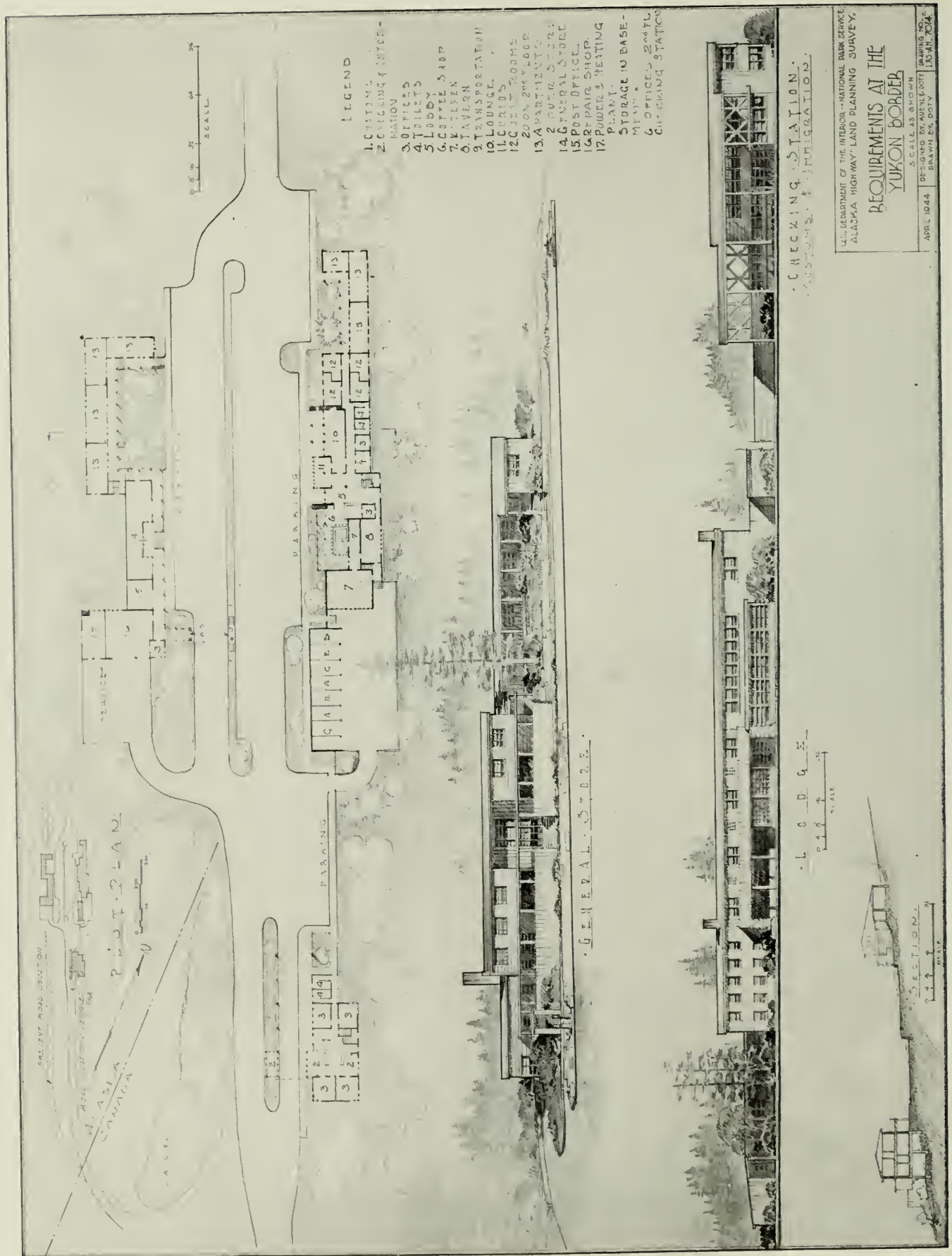


Figure 62.

Both forms will be used for observation points, photographing sites, turnarounds, and rest stops. Where practicable, they may be combined with simple roadside parks, which should include such items of convenience to the traveler as comfort stations, a supply of drinking water, and one or two picnic tables and fireplaces. Areas indicated for picnic purposes should be surfaced with compacted gravel.

The loop form of pull-off is much to be preferred for combination with roadside parks, but because of maintenance requirements the number of these units will probably be very limited.

Suggestions for both overnight and vacation types of cabins are offered in figure 61, to supplement housing accommodations within the lodges. The two differ mainly in that the latter includes kitchen facilities. Probably the second type will find more favor at such vacation areas as Mentasta Lake, while the first will be more popular at the sites which serve mainly as stops for but a single night. The suggested construction is of frame or logs, its informal design reflecting the "wanigan" so useful in the growth of the Territory.

Another perspective sketch on figure 61 suggests an arrangement of facilities suitable for secondary sites where use as a hunting and fishing lodge is more stressed than casual overnight tourist stops. It is also adaptable to situations removed from the main traveled highways. Among the needed elements are a simple but comfortable lounge, dining room, store, quarters for the operator in charge, and, in the wing to the left, three or four bedrooms on the lower floor and a small dormitory above. The type of accommodations here required is somewhat less sophisticated than those recommended for the larger vacation areas and overnight

stops.

The Special Case at the Alaska-Yukon Boundary. At the major point of automobile entry into the Territory, the Alaska Highway crossing of the 141st meridian, special facilities will be required, some of which are suggested in figure 62. Needs here center about the requisite formalities of customs and immigration clearance. Excellent opportunity is also afforded to dispense pertinent information concerning Alaska. Various government agencies may find it advisable to place contact offices here.

Hotel facilities are needed, not only as a unit in the regular spacing of such accommodations, but also to care for travelers who may reach the border station after customs and immigration offices have been closed for the night.

A general store, postoffice, facilities for sale of gasoline and repair of automobiles, and office space for a bus agency are included. Housing for governmental and other employees of the community is incorporated.

The lodge of the plan provides for 24 guest rooms and 3 apartments. If necessary, the latter can be converted into rooms and the lodge capacity further enlarged by extending the room wing along the road.

Alignment and grades of the highway at the site are not perfect. The location originally designed by the Public Roads Administration would swing more to the north, ease the grade, and provide more room for the development of necessary border facilities. Plans for construction of these should take into account the possibility of such relocation, which could be made a part of a general program of road improvement or included in the installation of the facilities at the boundary.

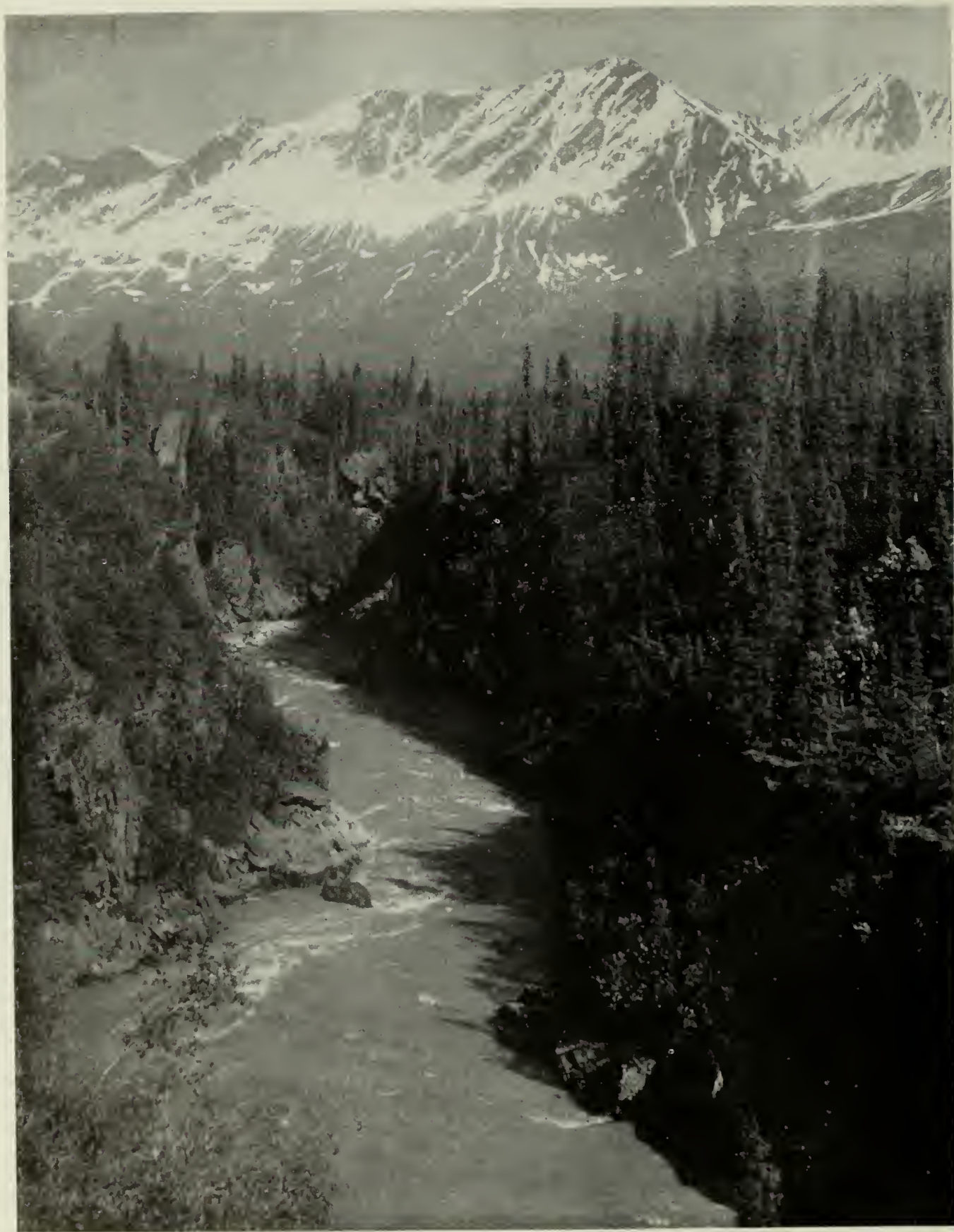


Figure 63.—Devil's Elbow, Tsaina River.

PUTTING THE PLAN INTO EFFECT

After deciding the type and extent of facilities needed to serve recreational travelers in Alaska, whether visitors or residents, the advisability of putting the plan into effect must be considered, and means by which that result may be achieved, if it is deemed worthy.

There must be examination into approximate costs involved, the capital investment to be made before service can be offered the using public. Soundness of investment must be tested, assurance obtained that returns, whether direct or indirect, will be commensurate. Sources of funds must be analyzed. Machinery must be set up to carry on the detailed planning and supervision of construction which are necessary to successful provision of facilities. The manner of administering facilities must be determined, and arrangements perfected for such administration.

APPROXIMATE COSTS INVOLVED. Detailed estimates of cost must obviously await and accompany the final plans from which physical features will be built. The program has not yet been crystallized enough to allow calculation of every cubic yard of earth to be moved or of the exact number of shingles needed to cover yet uncounted roofs. It is possible, however, to arrive at a general approximation of the overall costs which may be expected.

The major items which make up the costs of such projects normally fall into the classifications of (1) purchases of land, (2) roads, and (3) buildings and their contributory utilities.

Lands. It has been noted that the Alaska Highway and the other roads in the Territory pass largely through lands which are still in public ownership. Such homesteads and other entries as have already been perfected have not prevented the selection of advantageous sites for the required recreational facilities. Therefore the subject of land purchase may be dismissed with the simple statement that no action of the nature will be necessary.

Roads. The direct improvements to the highways which have been suggested in Chapter IV will act to promote greater recreational use of the roads and fuller enjoyment of that use. However, their cost should be considered as chargeable to maintenance and operation of the roads, and not properly as a part of the provision of facilities for lodging, feeding, entertaining, and informing those who will travel the system.

Extensions of the highway for the primary purpose of viewing the surrounding countryside do fall in the latter category, whether they are simple wide spaces in the road or loops to better points of vantage. They are unnecessary for accomplishment of travel over the roads, but advisable primarily to increase the pleasure which will be derived by sightseeing travelers. It is estimated that there may be needed as many as 100 major opportunities to pull off the traveled way, that a typical one may include an area of as much as 1,200 square yards of gravel surfacing, and that a fair average cost, complete with guard rail or rampart where items of that nature are needed, would approximate \$6,000.

At vacation areas and major and secondary overnight stopping places it will be necessary to build entrance and service drives, parking spaces, and service courts. Gravel surfacing will probably be adequate for these features and for view overlooks, without recourse to bituminous treatment, even if through highways are so improved. This assumption is based upon the theory that travel speeds will be decreased within the immediate environs of lodge and camp grounds. Should this premise be disproved and treatment become necessary, costs will increase accordingly. It is estimated that minor roads and graveled areas will average 5,000 square yards for secondary stopping places, 7,500 for major ones, and 10,000 for the vacation area at Mentasta Lake. The costs involved should not exceed \$4 per square yard, a figure roughly twice that of straight-run highway construction in Alaska.

Buildings and Utilities. Developmental costs for the structures and public utilities which will be included in the growth of potential communities are not estimated. It is reasoned that these will not be installed by any governmental agency or under subsidy from it, but by private enterprise working in conformity with policies and standards which will be established by the General Land Office. As communities expand, need will arise for public systems of water supply and distribution and sewage collection and disposal, items which should concern the cities immediately upon their incorporation.

As opposed to communities, the various vacation areas and overnight stops in natural surroundings should probably be initiated by the use of public funds, whether or not the whole program is finished through this medium. The need for stopping places is pressing if Alaska is to be accessible to motor tourists. Provision of such facilities by private enterprise usually awaits a demonstration of need more forcible than the theoretical proof of this report. Installation of a leaven of well-planned and satisfactory accommodations by public agencies will go far to set standards for developments by private capital and to discourage enterprises of haphazard and undesirable character.

Overall figures set upon the costs of buildings and utilities required at the various areas will necessarily be approximate, since detailed planning must precede detailed calculations of construction costs. Plans worked out for Mentasta Lake include enough detail to permit a more finished analysis of costs, but even here there is nothing to indicate that revisions of considerable moment will not be involved before development is attempted.

From experience in the provision of comparable facilities in the States, and with due allowance for the "Alaska differential", it appears that the estimate for buildings at Mentasta Lake should be not less than \$180,000, for utilities \$60,000, and for landscape embellishment \$12,000. Major and secondary overnight stops might run one-half and one-third as much, respectively.

The cost of needed professional services in the fields of engineering, architecture, and landscape architecture, for preparation of detailed surveys and plans, and for supervision of construction, will

run higher in Alaska than in the States. It should aggregate about 6 percent of the total costs for the items with which it is concerned.

Markers and Signs. Mileage and directional signs are recognized as adjuncts to ordinary use of the highways, and their installation as a function of the administering agency. Because of the essential governmental nature of the service, benefiting the traveler for business or sightseeing alike, its cost is not considered as a proper charge to use for recreational travel alone.

Interpretive signs, on the contrary, are classed as primary aids to touring. The program is subject to elaboration or restraint, both in number and in unit cost of signs. It lends itself to modest beginnings, augmented as justified by use. At the start it will be well to install a few effective and permanent markers, rather than to attempt full coverage with makeshift temporary affairs which must be replaced later. One hundred markers at an average cost of \$200 will make an acceptable start toward interpreting Alaska's scenic splendors and historic assets to its interested visitors.

Summary of recommended expenditures for recreational facilities

Land Purchases (none required).		
View Overlooks (100 @ \$6,000).....		\$600,000
Developed Areas:		
Mentasta Lake:		
Incidental Roads	\$40,000	
Buildings and Utilities.....	240,000	
Landscape Improvement.....	12,000	
		<hr/>
		292,000
Major Overnight Stops (each of 19):		
Incidental Roads	30,000	
Buildings and Utilities.....	120,000	
Landscape Improvement.....	6,000	
		<hr/>
		156,000
Secondary Overnight Stops (each of 4):		
Incidental Roads	20,000	
Buildings and Utilities.....	80,000	
Landscape Improvement.....	4,000	
		<hr/>
		104,000
Interpretive Signs, (100 @ \$200).....		20,000
Surveys, Plans, and Supervision.....		180,000
		<hr/>
Total Estimated Recommendations.....		4,472,000

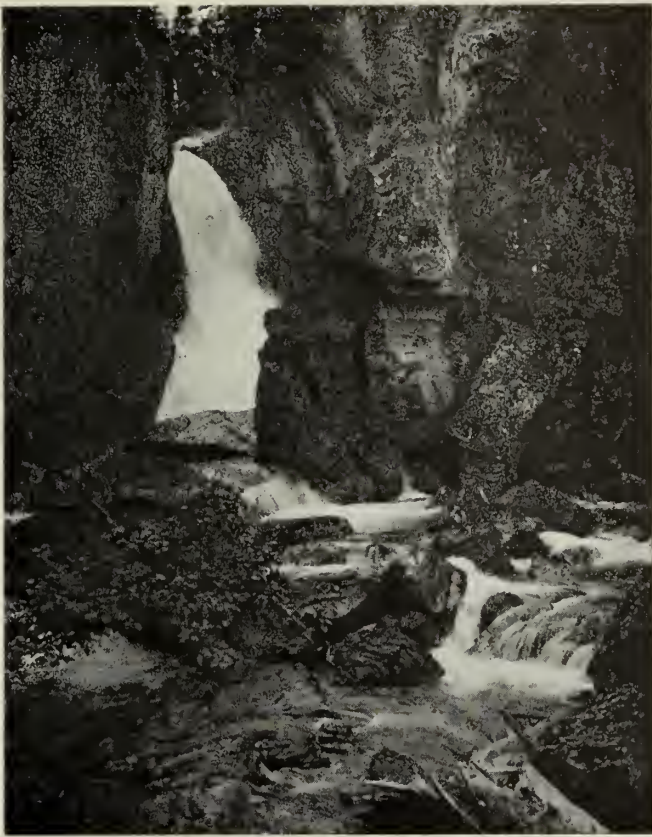


Figure 64.—Liberty Falls, Edgerton Cutoff.

THE ECONOMIC SOUNDNESS OF EXPENDITURES. It has been stated that, ordinarily, all plans for improvements must be appraised as to their economic soundness. So far as the expenditures recommended by this report are concerned, it would be a simple matter to generalize that without them travel by automobile to Alaska would be almost impossible; that such travel for normal business is essential to the future economic welfare of a great country, hitherto largely unutilized; therefore, any cost is justified to achieve a result so generally conceded as desirable. But what profits will be returned, in addition, from the recreational use which will follow the installation of facilities, but which would not accrue without them?

Pertinent parallels may be drawn from facts cited by the Tennessee Division of State Information in the April 1944 issue of "The Tennessee Planner". It summarizes results of a comprehensive survey of tourist travel into the state for about 18 months just prior to war restrictions.

Analysis of included data reveals that 26,223,635 tourist nights were spent in Tennessee during 1941. The article also states, with regard to Tennessee, that "the investment in hotels, tourist courts, and

other facilities engaged either wholly or part-time in the tourist business amounts, in round figures, to \$250,000,000". The plant investment for tourist accommodation is \$9.53 per tourist-night per annum.

How does this compare with facilities recommended for Alaskan roads? From the table of expected use on page 54, it is estimated that the combined daily load at Mentasta Lake and the major and secondary stopping places will total 1,600 persons, 102,400 for the 64-day season. If tourists spend with the same freedom as those in Tennessee, investment of \$975,872 is justified for these 24 sites, upon the basis of recreational travel.

Wide variations must be expected, however, in the spending capacities of visitors to Tennessee and of adventurers to Alaska. The eight states contiguous to Tennessee, from which a large proportion of its tourist travel is drawn, average about 40 percent below the nation-wide economic level, if per capita effective buying income is accepted as a criterion. As has already been pointed out, most tourists who essay the long trip from the States to Alaska will be drawn from the higher economic strata.

The same article shows that the 1941 Tennessee tourist spent \$2 a day for food and lodging while in the state. The North Pacific Planning Project, in its study of postwar use and maintenance of the Alaska Highway, has estimated conservatively that these costs will run from \$5.25 to \$6.00 for travel along the Highway to and in Alaska. On the lower basis, expenditures for facilities can justifiably be increased by 162.5 percent, thus becoming over \$2,500,000. Revenue accruing to the operators from local business has not been considered.

Comparisons with capital investments in Tennessee may be enlightening, but the basic question still persists. What profits will return from provisions for recreational use? To sum up such returns, some of which are tangible and others less evident, it is necessary to consider direct returns from the facilities, whether to the public treasury or to individual citizens, and those which do not come directly from the facilities although possible only because of their existence.

If accommodations are provided by the government and remain public property, as is recommended, and since their operation can hardly be

considered and entered into as a governmental function, it may be inferred that the owner should receive a just fee in return for any franchise granted to a private agency to operate the facilities for profit. Such fees are direct returns to the public treasury. To what extent would they amass?

Information may be gained from experience in the operation of similar facilities in National Parks. Tourist conditions at four of the eight previously-cited areas are like those anticipated along Alaska roads. During a recent normal travel year, before the influence of gasoline and rubber scarcity was felt, direct returns from those four parks to the public treasury in the form of franchise fees from concessioners ran to about \$.10 per tourist-day. At that rate, from the expected seasonal visitation to Mentasta and the major and secondary stopping places, there would be recovered annually \$10,240. If this sum is regarded as interest, at the rate which the United States offers its citizens through war bonds, the justifiable investment, for this fractional return, would amount to over \$350,000.

Direct returns to the individual citizen will be mostly in the form of payment for personal service, in connection with the construction of facilities or with their operation after they are completed. Conservative estimates indicate that at least half the recommended construction costs will be in wages for skilled and unskilled labor.

Labor will also be needed to maintain the plant throughout the year and offer service to tourists in the summer. Assume the seasonal employment of a dozen persons at Mentasta and five at each overnight stop. Three months time for 125 persons is involved, besides the 30 who remain on year-round duty. Certainly more than \$150,000 will be paid out each year to those who serve the tourist.

Indirect financial benefits to Alaska and to its citizens through tourist travel will be important. A total of 384,000 tourist-days per annum has been projected as a possibility. Leaving out those who will travel by bus, and assuming four passengers to a car as a reasonable compromise between economy of transportation and comfort of passage, there are involved annually about 15 million car-miles in Alaska. The added 75 million miles which must be traveled between the home garage and the boundary of the Territory may



Figure 65.—Chugach Mountains from the Glenn Highway.

interest cost-defraying riders but do not enter into the Alaska picture.

Planning authorities previously cited from the Pacific Northwest estimate that motor tourists will spend an average of \$1.00 per day per person for incidentals other than food and lodging while in Alaska, and that automobile operation costs beyond the southerly end of the Alaska Highway will be about \$.047 per car-mile, exclusive of depreciation and fixed charges. Upon that basis, the expected 48,000 tourists will leave \$1,000,000 of new money in the Territory each year. Ten percent of this, or \$100,000, might well be counted as clear profit to Alaskan residents who will serve the tourist. These receipts will be attendant upon recreational travel from the United States. The Alaska Highway has made this possible, but unless procurement of food and lodging along the way is made easy, little travel will result.

The indirect consequences of postwar use of the roads of Alaska can hardly be appraised in dollars-and-cents value to the Territory and to the nation. Highway access to Alaska will act as a stimulus to further settlement. Alaska is coming of age; if it is to take its right and proper place in the political and economic pattern of the nation, it needs the larger population which it can so well support as much as the nation requires the wise utilization of Alaska's resources. Discouragement of potential settlers through failure to adopt simple measures which will facilitate travel is as inimical to the best interests of Alaska and Alaskans as to those of the thousands of outlanders whose interest in the Territory is so apparent.

SOURCES OF FUNDS. Construction of the Alaska and Glenn Highways has been financed through funds made available as a military necessity. Granting that the same military necessity has not dictated the inclusion of features essential to post-war travel but irrelevant to military use, it seems that full returns should be garnered from the investment and its value maintained through adaptation to civil use. From whence and through what channels should come the requisite financing?

The status of Alaska as a territory, administered by the Federal government, makes it necessary that costs involved be assumed by that government, since dependence upon private enterprise to initiate and prosecute an acceptable program of development has been demonstrated as uncertain.

Ordinary operation of affairs in the Territory is covered by funds provided by the Congress through the regular channels of legislative appropriation. Specific items of plant improvement are likewise included, as the need for them arises. Perhaps this will prove the most appropriate source of funds for undertaking the provision of accessories necessary to Alaskan highway travel, although an alternative method suggests itself. Provision of tourist facilities along the roads of Alaska would fit well into a program of postwar public works for presentation by some government agency. Perhaps other proposals will be received for bringing the highways themselves to their deserved status.

Private enterprise may anticipate, but less than adequately, the opportunity which will accompany the opening of the Alaska Highway to private use. Some time will elapse before accommodations for the traveler can be provided by governmental action. Purely as an interim proposal, and solely to make early private travel possible, it is recommended that legislation be enacted which would authorize the Secretary of the Interior, at his discretion, to lease to private interests, for the purpose of furnishing lodging, meals, and automobile supplies and repairs, any of the sites herein proposed for such use. Construction of the facilities and their operation by the lessee should conform to general standards and policies herein established, and be subject to approval by the Secretary. Provision should be included for cancellation of the leases and recovery of plant by the government, contingent upon fair reimbursement to the lessees.

PLANNING AND CONSTRUCTION. When the extent of the program has been determined and financing arranged, there must be planning, building, supervising, and arranging for operation, before the tourist may start north with full confidence that his comfort and convenience are assured. If facilities are provided by the Federal government, responsibility must be assigned to some agency of that government for obtaining results which have been anticipated and for which funds have been set aside. Various agencies have been concerned with public works of this nature; creditable ends would probably result from the delegation of responsibility to any one of several. It is not within the province of this report to recommend a specific recipient for the task, but some of the things which must be done can well be recited.

Detailed topographic surveys must be obtained of the sites chosen for development. A knowledge of the nature and distribution of vegetative cover is essential. Direction and extent of featured views must be recorded, and the possibilities for water supply and sewage disposal investigated.

The site plan is begun. Needed facilities are listed and so arranged upon the site as to take the best advantage of land characteristics. Architect and landscape architect each bring to the task the particular knowledge which education and experience have given him.

Detailed plans are prepared for structures and accessories, whether for lodge buildings, cabins, retaining walls, small-boat piers, approach roads, parking lots, service garages, water supply, sewage disposal, or what-not. Estimates of quantities and costs involved are compiled, and contracts awarded.

It will be asked whether these things can not be built without detailed planning. The answer is that they can be and have been built, in the States and to a greater degree in Alaska, without benefit of technical service. Too many structures in the Territory have been closely akin to Topsy; there should be a fruitful field for architecture in the cycle of development which appears ahead.

The corollary is that the "Topsy" is razed far sooner than its neighbor of professional design, not always because of structural instability, often because of more expensive operation or maintenance, sometimes because it fails to attract deserved business to occupant tenants.

Professional planning is usually moderate in cost when compared with the total expenditures for the planned structure; it almost always creates, by an ingenuity of arrangement, operational savings which offset its own cost within a comparatively limited period; it often accomplishes immediate savings in construction costs far beyond its own very modest expense. The value of professional planning and supervision to construction projects is generally recognized.

The manner in which construction of facilities will be carried on depends largely upon the way in which funds are provided for their establishment.

If appropriations are made through the ordinary legislative channels, the most feasible procedure will probably lie in award of contracts covering the desired improvements. Exception is noted with regard to the roadside view overlooks, which most certainly should be constructed by one of the two governmental road-building agencies which have functioned in Alaska for many years. Whether the approaches and incidental roads appurtenant to the various lodging places should be similarly excepted depends upon the final arrangement of site plans. Relatively short approaches could well be included in the general site contract, longer ones will fall naturally to the lot of the road-building agency.

Should construction be financed through a post-war work program, procedure would depend upon the form taken by that program. During the decade prior to Pearl Harbor, needed plant improvements like those required in Alaska were afforded to many Federal and State parks under circumstances which may be paralleled in postwar years. Those coming through participation in Public Works Administration grants were constructed under contract; more were built by Civilian Conservation Corps enrollees under the supervision of the National Park Service.

Either method would be adaptable, if available, to Alaskan needs. Participation in any program modeled along the lines of PWA would involve the advance preparation of detailed plans, but less field supervision. A distinctive feature of the CCC plan of action was the creation, within itself but as a responsibility of the supervisory agency, of a directive and technical group. Flexibility of program was thus assured and results obtained, in many

types of construction, which were superior to those which could have been accomplished through the contract procedure prevalent under PWA.

ADMINISTRATION OF FACILITIES. Consideration of the manner of administering future vacation and tourist facilities along the roads of Alaska resolves into two parts; (1) under whose general supervision and control shall they be operated, and (2) how will actual operation be carried on? Derivative from these appears a third; should all the facilities be subject to the same control and operation?

It is immediately apparent that they should not. View overlooks and interpretive signs do not fall in the same category as the other facilities. View overlooks have been described as lateral extensions of highways; their construction by a road-building agency has been recommended; their maintenance should logically be a function and responsibility of the highway-administering agency. Because the interpretive signs are so closely keyed to the view overlooks, and since installation and maintenance of distance-markers and directional signs are parts of road administration, there is good precedent for suggesting the inclusion of interpretive signs with those of other types. In preparing the text for these markers, road administrators should seek and be afforded the aid and advice of other government agencies most concerned.

Relation to Private Operations. The two primary questions apply then only to facilities which may be established at Mentasta Lake and at major and secondary overnight stopping places, through use of public funds. Roadhouses which already exist and operate under private auspices are obviously not subject to the same degree of control which should accompany use of government-furnished accessories.

In recommending sites for development, care has been taken not to infringe upon the territory of roadhouses which are apparently going concerns and which seem qualified to render to future travelers the adequate service to which they are entitled. Deviations from this principle are in the suggested accommodations at Summit Lake, not more than ten miles from Paxson's, and on the Glenn Highway opposite Nelchina Glacier, less than five miles from the not yet fully developed Eureka roadhouse.



Figure 66.—Protected waters of the Inside Passage, near Juneau.

The facilities at Summit Lake would be off the Richardson Highway, reached from the possible road from Mentasta Lake to Mount McKinley National Park, and should not be initiated prior to that road. Until such time, Paxson's will serve all the needs in that vicinity. The Nelchina location has been selected as offering a setting more pleasing to the traveler than the site of Eureka's present rather rudimentary accommodations. If the quality of these is improved to recommended standards, the Nelchina site may perhaps be dropped from further consideration. Possibly proprietors of roadhouses thus affected might look with favor upon the chance to operate superior Government-provided facilities in the neighborhood as concessioners.

If the expected volume of travel materializes, there are existing roadhouses whose proprietors will find it necessary to increase guest capacities of their own establishments. In truth, they may derive, from this report and its recommendations, many helpful hints on making these enterprises

more attractive to the tourist.

It is not the intent of this report to suggest a ban upon the development of tourist stopping-places by private capital in locations other than those listed for governmental provision. The listings and recommendations are aimed at one end, and one alone, that of having ready, as soon as possible, enough accommodations so that highway travel will be feasible for the tourist, even if the facilities must later be supplemented. A single thought is proffered concerning patents of land for private undertakings of this nature, and that only with the intent to safeguard scenic values of the roadsides; such developments should not be allowed to encroach upon the recommended 600-foot right-of-way, or to violate scenic easements which have been suggested.

Control. Government-provided facilities must come under general control and supervision of some governmental agency. Lands upon which facilities will be created, and the facilities themselves, are recommended for retention in Federal ownership. With the partial exception of Mentasta Lake, in

the last analysis, they will be necessary adjuncts to highway travel. Advantage sometimes accrues from unified administration of highways and facilities appurtenant thereto, although such procedure is not indispensable. It is recommended that the control and administration of such vacation and stop-over facilities as are provided on government lands along the highways of Alaska be vested in an appropriate governmental agency functioning in Alaska.

Operation. The governmental agency which becomes responsible for administration and general control of Mentasta Lake and the roadside stopping places will probably not carry on the actual operation of supplying food, lodgings, and necessary sundries to the traveling public. Activities of this sort are not generally considered as legitimate functions of government, and governmental agencies are usually debarred from conducting them.

Within the Territory, there is exception to the rule in that the Alaska R. R., an agency of the Federal government, has operated such facilities and furnished such services to the public at Mount McKinley National Park, an area administered by another Federal agency, the National Park Service. Perhaps the reason lies in several facts; that the railroad, contrary to usual procedure, is Federally owned and operated; that it carries no sleeping or dining cars; and that hotel facilities within the park and near the McKinley Park railroad station are well adapted to take the place of the missing rolling stock, while at the same time serving in their normal role of temporary resting place for park visitors.

So far as stopping places along the highways of Alaska are concerned, and regardless of the Mount McKinley situation, there seems no good reason for departure from usual and accepted practice. How is this problem handled ordinarily?

In many National Parks in the United States, the operation of facilities for the accommodation of visitors is by a concessioner, functioning under a contract with the government. Because of varying local conditions, no two agreements are exactly alike. In some cases government-owned structures are used by the concessioner, in others he builds and plans his own, subject to government approval. Franchise fees may take the form of a lump sum, a percentage of the gross income, a proportion of

the net profit, or an amount computed from a sliding scale applied to such percentages or proportions. Under conditions of the contract, the concessioner is often required to furnish services for which no fee is recoverable from the visitor, but which are indispensable to his enjoyment for the period of his park visit. Rates charged by the concessioner for commodities and services are not variable at whim, but must receive governmental approval before being put into effect or altered.

If recourse is had to the type of operation which has been described, results will be more apt to be satisfactory if the recommended services along the roads are consolidated under a single management. Multiple relationships between administering and operating agencies will thus be avoided, financial stability and responsibility of the concessioner rendered more probable, and uniform, dependable service to the traveling public assured.

Review of the expected quantity and distribution of tourist visitation brings forth the conclusion that consolidated operation of extensive facilities so widely distributed will be a considerable task, not to be entered into hastily, or with limited financial backing. Corporate prosecution of the undertaking will have its obvious advantages.

To meet the special and unusual conditions which accompany operations in Alaska, a particular and uncommon course is advocated. It is recommended that interest be stimulated at once in formation of a quasi-public and limited profit corporation, in which to vest the operation of roadside tourist and vacation facilities after they have been completed.

The envisioned corporation would include among its officers and stockholders men of known weight and substance in the Territory. Its management would be Alaskan, its field of operation in Alaska, and resultant benefits would accrue to Alaska. No stigma of exploitation would mar the record of its activities.

The sole purpose of the corporation would be to operate vacation and tourist facilities on lands under Federal administration. It would participate in no other form of business. Successful operation of roadside facilities might well lead later to expansion of the field of corporate activities to include tourist accommodations which now exist or may later be

provided in the National Parks and other Federally-administered areas of Alaska.

In recognition of the public-service nature of the corporation, fees for franchises granted to it could well be established upon a reasonable basis. Full time executives and year-round and seasonal field employees would be paid at rates commensurate with those received for similar services in Alaska. Volume purchasing through a central office would act to reduce prices paid for supplies to a lower level than that available for lesser transactions.

It is in no wise the intent of this proposal that participation in the corporation should be an act of philanthropy on the part of the stockholder. Because of the limited element of risk involved, it is the intent of the proposal that dividends on stock be restricted to modest proportions, the rate to be defined in the articles of incorporation and to

persist as a maximum through the existence of the corporation.

Profits beyond the stipulated dividend rate would be expended for improvement and expansion of plant, as required, and for the general benefit of areas upon which operated facilities are located. Use of the reserve profits would be under joint control of representatives of the administering and operating agencies. Extent to which the improvement reserve may accumulate should be specified.

The recommended procedure is designed to enlist within the corporation public spirited citizens of Alaska whose first concern is for its welfare. The organization would accomplish dual ends. It would increase the prosperity of Alaska and Alaskans, and at the same time augment the pleasure to be derived by those who have the good fortune to visit this land which has so much to offer.



Figure 67.—Frontier cabin and cache.

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